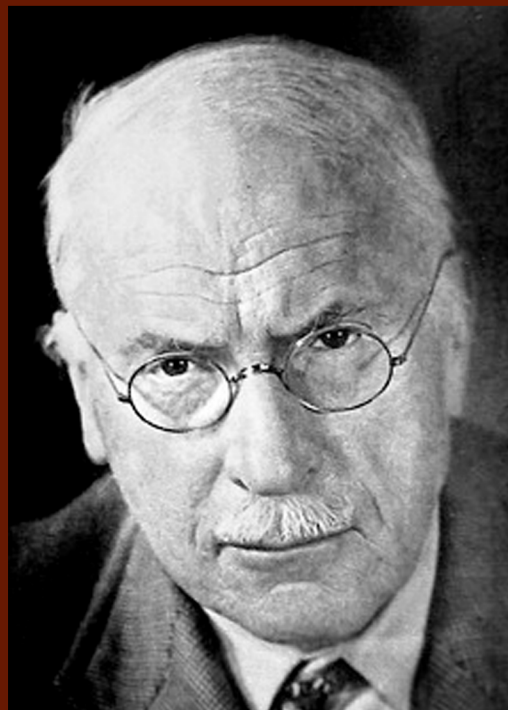




The International Journal of
INDIAN PSYCHOLOGY

Person of the Issue



Carl Gustav Jung (1875-1961)

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Message from Editors

Welcome to Volume 2, Issue 3. Throughout this period, IJIP focused on improving our policies, format and facilities provided, keeping in mind our authors; because we love our authors and our authors love us!

Our main purpose is to put forward a variety of psychological ideas and researches to the world. We also aim to develop meaningful relationships with good publications around the world. We do this with the aim of providing advantage to us and to them. Some of the major publishers and institutes we have tried to connect to be Google, Academia, OAJI and Research Bible. We have also been given a chance to work with Publishing Police at a very low cost and high quality benefits.

IJIP has been rewarded with a No. 1 position with a score of 19.67 on the Directory of Science which lists the top 100 science journals throughout the world. Our impact factor is 4.50, evaluated by Index Copernicus International, from Warsaw, Poland.

In the following issue experts in varying fields of psychology have shared their ideas related to psychological problems and their solutions. We are grateful to these authors for allowing us to publish their researches and ideas in this issue. We would also like to thank other writers, and our beloved readers for providing a strong support and being a part of team.

Prof. Suresh Makvana, PhD*

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Mental Health of East and West Area People in Ahmedabad

Janki Rathod¹, Dr. S. M. Kaji²

ABSTRACT:

The Present investigation is to find out the differences in mental health of East and West area people in Ahmedabad. The sample consisted of 120 people out of which 60 were east area people and 60 were west area people. For this purpose of investigation 'Mental Health Analysis Inventory' by A.B.Jansari, HarkantBadami, Charulata Badami was used. The data obtained were analyzed through 't' test to know the mean difference between the two groups. The result shows that there is no significant difference in mental health of east and west area people and east area male-female in Ahmedabad. There is significant difference in mental health of west area male and female people at 0.05 Levels.

Keywords: *Mental health, East, West, Male, Female, Area, Ahmedabad*

Health is the level of functional or metabolic efficiency of a living being. In humans, it is the general condition of a person's mind, body and spirit, usually meaning to be free from illness, injury or pain (as in "good health" or "healthy"). The World Health Organization (WHO) defined health in its broader sense in 1946 as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity"(WHO1948, 2006). Although this definition has been subject to controversy, in particular as lacking operational value and because of the problems created by use of the word "complete", it remains the most enduring (Jadad2008). Classification systems such as the WHO Family of International Classifications, including the International Classification of Functioning, Disability and Health (ICF) and the International Classification of Diseases (ICD), are commonly used to define and measure the components of health. Mental health is about the ability to work and study to realize your full potential, cope with day-to-day life stresses, be involved in your community, and live your life in a free and satisfying way. A person who has good mental health has good emotional and social well-being and the capacity to cope with change and challenges. Mental health problems can affect your feelings, thoughts and actions, and cause difficulties in your everyday activities, whether at school, at work, or in relationships.

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Mental health problems:

Feeling down, tense, angry or anxious are all normal emotions, but when these feelings persist for long periods of time, or if they begin to interfere with daily life, they may become mental health problems. Most mental health problems are not very severe or long-lasting. However, it is important to get support from your friends and family, and to ask for help early, for example by visiting your local doctor (general practitioner - GP) or your local headspace Centre.

Mental illness Mental illness can occur at any age, but anxiety disorders and depression are quite common problems for young people Mental illness can affect your thoughts, feelings, actions and memory. A mental illness is usually longer-lasting than mental health problems, and causes more distress and disruption to life. There are a number of mental illnesses. In the present study, the aim of the researchers is to compare the mental health level of east and west area people in Ahmedabad.

OBJECTIVES

1. To study differences between east and west area people Ahmedabad in relation to their mental health.
2. To study differences between east area male and female in relation to their mental health.
3. To study differences between west area male and female in relation to their mental health.

HYPOTHESES

1. There is no significant difference between east and west area people of mental health.
2. There is no significant difference between east area male and female of mental health.
3. There is no significant difference between west area male and female of mental health.
- 4.

METHOD

Sample:

The sample for the present study in Ahmedabad 120 east and west area people was Selected. 60 was taken from east area people and 60 were taken from west area people.

Tool:

To obtain data, “Mental Health Analysis Inventory” by A. B. Jansari, Harkant Badami and Charulata Badami (2011) was used for the purpose of study. The inventory consists of 100 items with yes/no response pattern. The test-retest reliability score of this test 0.92 and split half reliability score this of inventory is 0.90. Validity of this test was seen to be 0.71 which significant at 0.01 level.

Procedure

The collection of data was spread over a period of 20 days. The researcher personally visited the selected east and west area society in Ahmedabad. On the schedule date the researcher meet the east and west area people and made clear to them the purpose of administration. The researcher sought their co-operation.

The instructions were explained by the researcher and the doubts were clarified. They were assured that their response will be used for research purpose only and will be kept confidential. They were suggested to give free frank and honest responses without any hesitation. The scales were administered to the students. The scales were collected only after they were responded by the subject. After the completion of the administration, the investigator conveyed her gratitude and thanks to the all subject for their kind co-operation. The raw scores were statistically analysed in terms of means; standard deviation and t-test were used to compare mental health level of theist and west area people and relation to their Gender.

RESULTS AND DISCUSSION

The main objective of present study was to carry out the study of mental health level among east and west area people. In it statistical 't' method was used. Results discussions of present study are as under:

Table-1 Mean, SD, SED and 't' scores of mental health of east and west area people

Group	N	Mean	SD	SESD	‘t’Sign.		
East area	60	70.98	11.72	1.47	2.22	0.27	NS
West area	60	70.47	12.67	1.63			

Non-significant. (0.05=1.98)

Table 1 depicts that the value of mean and SD of mental health of east area people were 70.98 and 11.72 respectively and those of west area people were 70.47 and 12.67 respectively. The 't' value came out to be 0.27 which is non-significant, Thus the null hypothesis, number 1, which states "there is no significant difference between east and west area people of mental health" was accepted. It means that the mental health of east and west area people is of the same level.

Mental Health of East and West Area People in Ahmedabad

Table-2 Mean, SD, SED and 't' scores of mental health of East area male and female

Group	N	Mean	SD	SE	SED	't'	Sign.
East-Male	30	70.33	11.10	2.03	2.43	0.53	NS
East-Female	30	71.63	11.61	2.12			

Non- Significant (0.05=2.00)

Table 2 depicts that the value of mean and SD of mental health of east area male were 70.33 and 11.10 respectively and those of east area female were 71.63 and 11.61 respectively. The 't' value came out to be 0.53 which is non significant. Thus the null hypothesis, number 2, which states "there is no significant difference between east area male and female of mental health" was accepted. It means that the mental health of east area male and female is of the same level.

Table-3 Mean, SD, SED and 't' scores of mental health of West area male and female

Group	N	Mean	SD	SE	SED	't'	Sign.
West-male	60	73.67	11.09	2.02	3.17	2.01	0.05
West-female	60	67.27	13.44	2.45			

Significant at 0.05 levels (0.05=2.00)

Table 3 depicts that the value of mean and SD of mental health of west area male were 73.67 and 11.09 respectively and those of east area female were 67.27 and 13.44 respectively. The 't' value came out to be 2.01 which is significant. Thus the null hypothesis, number 3, which states "there is no significant difference between west area male and female of mental health" was rejected. It means there is significant difference between west area male and female of mental health. The conclusion is that the mental health condition of west area male is better of close ties, inter-personal relations, community participation, satisfaction with work and entertainment, fixed goals and viewpoint.

CONCLUSION

Major findings of the present study are,

1. There is no significant difference between east and west area people in Ahmedabad.
2. There is no significant difference between east area male and female in Ahmedabad
3. There is a significant level of difference in the mental health of west area male and west area female in Ahmedabad. The mental health level of west area male better than that of west area female.

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SETP: A New Powerful Tool for Improving Problem Solving, Decision Making and Creativity in Teenagers.

Dr. Arvinder Singh¹, Dr. Ajay K. Chaudhary²

ABSTRACT:

Our decisions decide our destiny. Problem solving, decision-making, analytical reasoning and creativity are important abilities not only for studies but also for every sphere of life. SETP (Seven Effective Thinking Patterns) tool developed by Dr. Arvinder Singh was applied on teenagers to study the effect on their cognitive abilities. The study was done on 50 convent school students. Important parameters like Innovative Thoughts, Decisive Factors, Pros- Cons Analysis and Broader Perspectives were studied on the scale of 1 to 5. Scoring was done for Pre-training and Post-training sessions. For innovative thoughts pre-training score was 2.10 ± 0.678 , while for post training it was 3.34 ± 0.717 . Decisive factor's pre-training score was 1.68 ± 0.653 , while for post training it was 3.52 ± 0.735 . Pros-cons analysis pre-training score was 1.66 ± 0.557 and post training score was 3.32 ± 0.768 . Broader perspective pre-training score was 1.86 ± 0.700 , while for post training it was 3.52 ± 0.931 . For language pre-training score was 2.70 ± 0.763 , while for post training it was 2.76 ± 0.847 . For expression pre-training score was 2.68 ± 0.768 and for post training it was 2.88 ± 1.256 . The above findings suggest that SETP tool was effective and showed significant improvement in 4 out of 6 parameters. The tool was not effective for language and expression parameters. Important point is that by SETP tool, we were able to enhance the cognitive abilities of school going children, which will make solid foundation for their future.

Keywords: *SETP, Seven Effective Thinking Patterns, Problem Solving, Decision Making, Creativity.*

Our decisions decide our fate. Taking effective decision and solving problems are fundamental for successful enriched life. Although management institutions teach decision-making and problem solving, but the tools available are somewhat effective on adult population only. In current era where Internet, information overload and multiple career opportunities are available, the teens many a times find themselves confused and lost.

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SETP: A New Powerful Tool for Improving Problem Solving, Decision Making and Creativity in Teenagers

The SETP tool, which is very effective on adults, is applied in this study for teenagers with modification and suitability for teens to study the effect on their abilities of Problem Solving, Decision Making and Creativity. SETP is abbreviation for Seven Effective Thinking Patterns is the tool designed and developed by Dr. Arvinder Singh who is postgraduate in medical science and trained in management from IIM and Oxford. The tool is designed by amalgamating the principles of Medical Science and Human Psychology. It is based on various researches that mind has different faculties to think and while thinking the optimum use of thinking power can be done by focusing on one thinking faculty at a time. Most of the people are unable to do this and they think by partially igniting all faculties of mind simultaneously leading to confused state of mind and/or ineffective decision. The confused state of mind lead to stress and inhibits the creativity at the time of problem solving when actually it is needed the most. The SETP tool teaches to harness the maximum potential of mind by focusing on different thinking faculties individually and finally integrating them synergistically to achieve optimum and effective result. The Seven Effective Thinking Patterns are:

1. Metacognitive Thinking Pattern
2. Objective Thinking Pattern
3. Constructive Thinking Pattern
4. Critical Thinking Pattern
5. Creative Thinking Pattern
6. Emotive Thinking Pattern
7. Radiant Thinking Pattern

The “SETP” teaches how to use these patterns and customize sequential order of employing the thinking pattern depending on the varying situation

REVIEW OF LITERATURE:

Various researches have been done to improve the potential of mind for effective decision-making and problem solving. **Russell Ackoff (1978)**, Author of ‘*The Art of Problem Solving*,’ makes a strong point when he says “The effort to what we do not want is reactive, retrospectively oriented problem solving. The effort to obtain what we want is proactive, prospectively oriented problem solving.” **Proctor (1989)** mentioned that we should use metaphors for solving the problems but he also indicated that metaphors should not be too close to the problem at hand, else familiar metaphors will not be enough to gain useful ideas or insights. **Dr. Edward de Bono (2000)** employed Six Thinking Hats technique by coding different thinking modes. **O’Connor et al (2000)** insisted on the need of reframing the problem for finding hidden solutions that

SETP: A New Powerful Tool for Improving Problem Solving, Decision Making and Creativity in Teenagers

otherwise may be difficult to find. **John Adair (2007)** emphasized that thinking is not a tidy process but it should be done with a sense of order.

MATERIAL AND METHODS:

The sample comprises of 50 adolescents randomly selected from convent schools of Udaipur district of Rajasthan. The age of sample ranges between 16-18 years and were boys. They all belonged to middle socio-economic status and were average on academic achievements. They were given topic of “ Junk Foods should be banned in India “. Students were asked to write essay of around 300 words in one hour. The answer sheets were labeled by unique number given to students. Then students were trained by SETP tool without giving any reference to the essay or art of writing essay. After training program they were asked to write essay on the same topic and the answer sheets were again labeled by unique number.

Three independent evaluators on prescribed parameters evaluated answer sheets and given scores of all three were averaged. The evaluators were kept blind about any tool applied and were not told that they are evaluating the same student twice. In short evaluators evaluated 100 copies unaware of SETP tool application. The selected parameters for evaluation of essay were:

- Innovative Thoughts
- Decisive Factors
- Pros- Cons Analysis
- Expression
- Language
- Broader Perspectives.

The evaluation was done on a scale of 1 to 5.

Results were analyzed by the Paired ‘t’ test was used for comparing pre and post test scores. All the calculations were done through SPSS Version 21.0.

SETP: A New Powerful Tool for Improving Problem Solving, Decision Making and Creativity in Teenagers

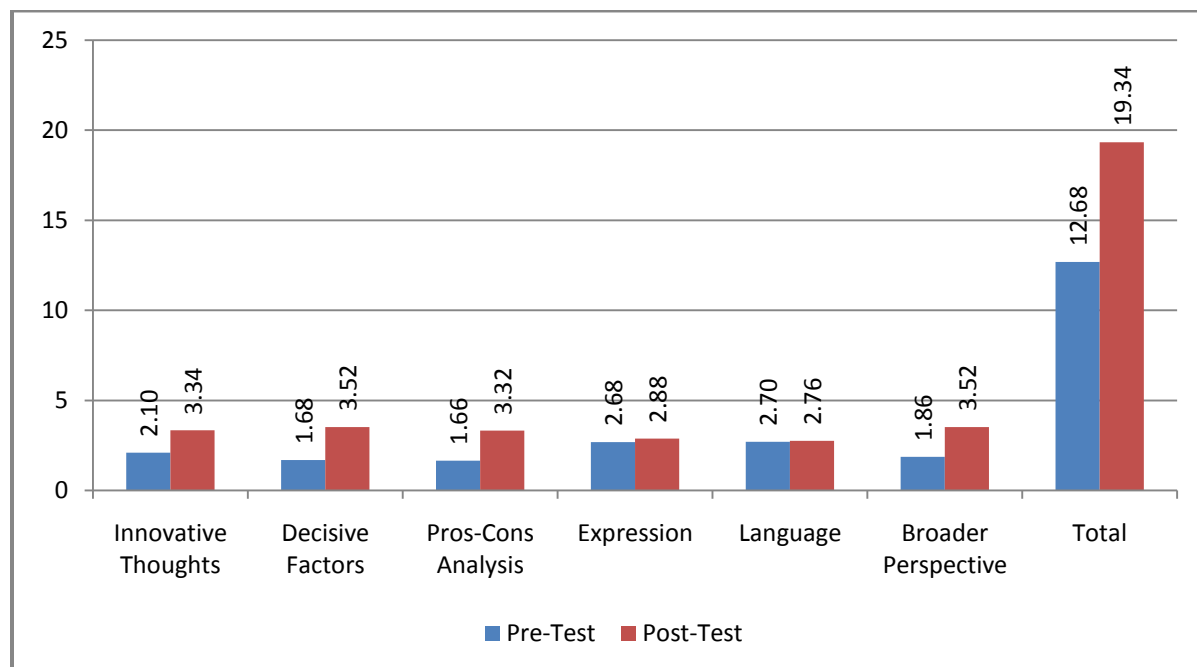
RESULTS:

Table and chart below depicts the scores of all 6 evaluated parameters on a scale of 1 to 5.

Table 1

Pre and post analysis of desired parameters after application of SETP tool on scale of 1 to 5

		Mean	N	Std. Deviation	Std. Error Mean	Mean Difference	t	P value
Innovative Thoughts	Pre-test	2.10	50	0.678	0.096	1.240	18.406	.000
	Post-test	3.34	50	0.717	0.101			
Decisive Factors	Pre-test	1.68	50	0.653	0.092	1.840	27.817	.000
	Post-test	3.52	50	0.735	0.104			
Pros-Cons Analysis	Pre-test	1.66	50	0.557	0.079	1.660	22.598	.000
	Post-test	3.32	50	0.768	0.109			
Expression	Pre-test	2.68	50	0.768	0.109	0.200	01.871	.067
	Post-test	2.88	50	1.256	0.178			
Language	Pre-test	2.70	50	0.763	0.108	0.060	01.769	.083
	Post-test	2.76	50	0.847	0.120			
Broader Perspective	Pre-test	1.86	50	0.700	0.099	1.660	17.051	.000
	Post-test	3.52	50	0.931	0.132			
Total	Pre-test	12.68	50	1.994	0.282	6.800	31.524	.000
	Post-test	19.48	50	2.332	0.330			



DISCUSSION:

The above table and graph indicate that the mean and standard deviation score for innovative thoughts during pre-training situation was found to be 2.10 ± 0.678 , while for post training situation it was found to be 3.34 ± 0.717 . The mean difference was found to be 1.240 and the 't' score was found to be 18.406 which is significant at 0.01 level ($p < 0.01$). It infers that there is significant increase in scores of innovative thoughts due to intervention of SETP.

The results show that the mean and standard deviation score for decisive factors during pre-training situation was found to be 1.68 ± 0.653 , while for post training situation it was found to be 3.52 ± 0.735 . The mean difference was found to be 1.840 and the 't' score was found to be 27.817, which is significant at 0.01 level ($p < 0.01$). It deduces that there is significant increase in scores of decisive factors due to contribution of SETP.

The evaluation of answer sheets indicate that the mean and standard deviation score for pros-cons analysis during pre-training situation was found to be 1.66 ± 0.557 , while for post training situation it was found to be 3.32 ± 0.768 . The mean difference was found to be 1.660 and the 't' score was found to be 22.598, which is significant at 0.01 level ($p < 0.01$). It concludes that there is significant increase in scores of pros-cons analysis due to involvement of SETP.

The above table and graph views that the mean and standard deviation score for expression during pre-training situation was found to be 2.68 ± 0.768 , while for post training situation it was found to be 2.88 ± 1.256 . The mean difference was found to be 0.200 and the 't' score was found to be 1.871, which is insignificant ($p > 0.05$). It determines that there are no significant changes in scores of expression due to involvement of SETP.

The results reflect that the mean and standard deviation score for language during pre-training situation was found to be 2.70 ± 0.763 , while for post training situation it was found to be 2.76 ± 0.847 . The mean difference was found to be 0.060 and the 't' score was found to be 1.769, which is insignificant ($p > 0.05$). It accomplishes that there are no significant changes in scores of language due to involvement of SETP.

The above table and graph produce that the mean and standard deviation score for broader perspective during pre-training situation was found to be 1.86 ± 0.700 , while for post training situation it was found to be 3.52 ± 0.931 . The mean difference was found to be 1.660 and the 't' score was found to be 17.051, which is significant at 0.01 level ($p < 0.01$). It achieves that there is significant increase in scores of broader perspective due to involvement of SETP.

SETP: A New Powerful Tool for Improving Problem Solving, Decision Making and Creativity in Teenagers

The results remark that the mean and standard deviation score for total scores during pre-training situation was found to be 12.68 ± 1.994 , while for post training situation it was found to be 19.48 ± 2.332 . The mean difference was found to be 6.800 and the 't' score was found to be 31.524, which is significant at 0.01 level ($p < 0.01$). It surmises that there is significant increase in total scores due to involvement of SETP.

CONCLUSION:

It is concluded that SETP is very effective tools for improving the parameters of innovative thoughts, decisive factors, Pros-Cons analysis and broader perspectives. These qualities are important and essential for problem solving and decision-making. At the same time improvement in innovative thoughts is helpful to increase the creativity level. The application of these tools to school and college students may change their lives for better because in this information rich competitive environment the ability to take effective decisions and creative solution of problems is essential. The main point here is that by SETP tool, we are enhancing the abilities of school going children, which will make solid foundation for their future.

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Effectiveness of the Art of Living YES! Programme on School Students

Sweta Sharadkumar Chauhan¹

ABSTRACT:

Peer Pressure is very much common during Examination, sports and entrance tests. It is experienced in human relations too. So how can we cope with everything? The Art of Living YES! (The Youth Empowerment Seminar) programme is a life skills programme. It is composed of three modules: Healthy Body, Healthy Mind and Healthy Lifestyle. The Art of Living YES! Programme is based on- Sudarshan Kriya, Meditation and breathing techniques, Techniques for mental focus and concentration, Techniques for overcoming fear and anxiety, Interactive process, team games, Food awareness, Group discussions, Learning through fun and games, service to others, confidence building and leadership. YES! programme was applied by the Art of Living teacher. The researcher developed a rating scale for measuring YES! programme. Post test only experimental group design was used in this research. The students of SSRVM School, Vallabh Vidyanagar made the population for the study. For content analysis X2 was found out and interpretation is derived from the result. School students have shown positive tendency about YES! programme. Students were more positive. YES! programme was found more effective on the students of SSRVM School. It is suggested that such programmes can be implemented on various groups at Schools to enhance the positive life skills and better living and life style.

Keywords: *Art of Living, Effectiveness, School Students*

Peer Pressure is very much common during Examination, sports and entrance tests. It is experienced in human relations too. The ability to cope with stress, its management and elimination of its effects are becoming consideration the problems related to the consequences of today life style, artificially created environment . So how can we cope with everything? The Art of Living YES!(The Youth Empowerment seminar) programme is a life skills programme. It is composed of three modules: Healthy Body, Healthy Mind and Healthy Lifestyle.

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Effectiveness of the Art of Living YES! Programme on School Students

One of the key characteristics of the educational programs offered by the foundation is giving practical knowledge, techniques and skills that help people cope with stress and stressful situation, remove their influences and handle more efficiently with different tasks and demands in daily life, while at the same time improving health and achieving better quality of life.

• The Art of Living Foundation:

"My Vision is a Stress-free, Violence free world"

- Sri SriRavishankar

Sri SriRavishankarji is a humanitarian and spiritual leader, an ambassador of peace and human values. He found The Art of Living Foundation, one of the largest international non-government organization Through his work, Sri Sri has inspired millions of people around the world with a vision of a stress-free, violence-free world. He has founded courses that provide techniques and tools to live a deeper, more joyous life and he has established nonprofit organization that recognize a common human identity above the boundaries at race, nationality and religion.

• The Art of Living YES! Programme:

YES! is a programme based on life skills. It is composed of three modules:

- Healthy Body
- Healthy Mind
- Healthy Lifestyle

• Healthy Body:

The health body module consists of physical activity that includes yoga stretches, mindful eating processes and interactive discussions about food and nutrition.

• Healthy Mind:

The healthy mind module includes stress management and relaxation techniques. Breathing exercises (eg.,SudarshanKriya) and mindfulness techniques are used to calm the mind, bringing awareness to the moment and enhancing concentration. Group processes promote personal responsibility respect, honesty, and service to others.

• Healthy Lifestyle:

In the healthy Lifestyle module students learn strategies for handling challenging emotional and social situations, especially peer pressure. Mindful decision making and leadership skills are taught via interactive games come and see the world from a different point of view.

• YES! Programme contents:

The Art of Living YES! Programme is based on

- SudarshanKriya, Meditation and breathing techniques, Techniques for mental focus and concentration, Techniques for overcoming fear and anxiety, Interactive process, team games, Food awareness, Group discussions, Learning through fun and games, service to others, confidence building and leadership.

OVERVIEW OF THE PROGRAMME:

- Age Group : 14 to 17 Years
- Course duration : 4 to 6 days
- Time Per day: 3 to 4 hours.

RESEARCH QUESTIONS:

- What is YES! programme?
- How could the YES! Programme be useful for students?
- What will be the effect of YES! Programme on student's behavior?

OBJECTIVES OF THE STUDY:

- To construct rating scale for measuring YES! programme.
- To try-out YES! programme in School.
- To study the effectiveness of YES! programme through quantitative analysis.
- To derive educational implications and make recommendation for YES! programme.

RESEARCH METHODOLOGY:

- YES! programme was applied by the Art of Living teacher.
- The researcher developed a rating scale for measuring YES! programme. The data was collected and processed by statistical analysis and interpretations are derived.
- Post test only experimental group design was used in this research.

• Population and Sample:

The students of Sri Sri Ravishankar Vidya Mandir, Vallabh Vidyanagar made the population for the study. 40 students were given a rating scale. This was a sample for the study, which was random representative sample.

• Construction of a Tool:

The researcher had constructed a rating scale comprised of Attributes. After expert's opinions ten attributes were included in this rating scale. The rating scale was administered on students after the programme.

• Statistical Data Analysis:

For content analysis X^2 was found out and interpretation is derived from the result.

School students understanding about YES! programme

No.	Attributes	A	B	C	D	E	X^2 Value	Sign.
1.	SudarshanKriya	27	06	06	00	01	60.24	**
2.	Peace of Mind	23	11	04	02	00	43.74	**
3.	Patience	20	13	04	03	00	34.24	**
4.	Perception	19	14	06	01	00	34.24	**
5.	Leadership	25	10	04	01	00	52.74	**
6.	Creativity	22	12	05	01	00	41.74	**
7.	Dynamism	24	10	04	02	00	47	**
8.	Team Work	25	11	03	01	00	54.48	**
9.	Observation	23	13	04	00	00	49.24	**
10.	Confidence building	25	14	01	00	00	62.74	**

*indicates significance at 0.05 level.

Effectiveness of the Art of Living YES! Programme on School Students

**does not indicate significance at 0.05 level

df=4, at 0.05 level sign. value is 9.488.

- | | | |
|---|---|--------------------|
| A | = | Strongly Agree |
| B | = | Agree |
| C | = | Uncertain |
| D | = | Disagree |
| E | = | Strongly Disagree. |

For the attributes 1 to 10 the value of X^2 at df=4 and at 0.05 level the calculated X^2 value > table value. Hence it can be said that difference is significant. The null hypothesis is rejected. So the data is not normally distributed.

From above analysis it could be interpreted that the School students had not given their choice at random. Hence specific opinions on positive YES! programme are generated from their chosen frequencies.

FINDINGS OF THE STUDY:

- The school students' responses for the attributes of rating scale has generated specific opinions. Their level of understanding about YES! programme from statistical interpretation of X^2 is showing general choice about attributes.
- School students have shown positive tendency about YES! programme.

CONCLUSION:

The Art of Living YES! programme are based on unique approach, process of social interaction, the use of breath as a link between human mental state and situation they face. Students were more positive. YES! programme was found more effective on the students of SSRVM School.

It is suggested that such programmes can be implemented on various groups at Schools to enhance the positive life skills and better living and life style.

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Prediction of Perception of Home environment of Indian Adolescents based on their Emotional Intelligence

Phalguni Bhattacharya¹

ABSTRACT:

The major objectives of the study were to find out whether adolescents' perception of 10 dimensions of home environment could be predicted by their emotional intelligence and gender difference, if any, in the said prediction. The sample comprised 600 adolescents (300 girls; 300 boys) aged 12 through 15 years of Kolkata. Area, stratified and multi-stage random sampling were used to select the sample. Standardized tools viz., Home Environment Inventory, Mangal Emotional Intelligence Inventory, Socio-Economic Status Scale were administered for data collection. Multiple Regression Analyses revealed:- i) adolescents' perception of most dimensions of home environment could be significantly predicted by their emotional intelligence ii) gender difference in the said predictions did not emerge.

Keywords: *Prediction of Perception of Home Environment, Emotional Intelligence, Adolescents*

The term adolescence as we know it today has a broader meaning. It encompasses not only physical maturity but also mental (cognitive), emotional. Adolescence spans from 12 through 19 years of age and is marked by rapid changes (Morgan et al., 1993). With enhancement of cognitive abilities in adolescence, the perception of parents, parenting behaviors and home/family environments of adolescents become clearer, mature and more nuanced (Youniss and Smollar, 1985). Such perceptions of adolescents are also associated closely with their socio-emotional development (Hurlock, 2007). The aspects of emotional intelligence viz., accurate perception and expression of emotions, ability to access and generate emotions; understanding emotions and emotional meanings; emotional regulation (Mayer and Salovey, 1997; Mayer et al., 2000) generally show remarkable improvement during adolescence (Hurlock, 2007). Just as adolescents show individual differences in emotional intelligence so does their accuracy of perception of home (family) environment.

Onset of adolescence marks the emergence of more insightful perception of home (family) contexts (Youniss and Smollar, 1985). Although the importance of peers increases in adolescence parents continue to remain significant people in adolescents' lives (Mussen et al., 1990). Thus clearer perception of home environment virtually means more accurate perception of parents in adolescence.

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Prediction of Perception of Home environment of Indian Adolescents basic of their Emotional Intelligence

Researches (e.g. Youniss and Smollar, 1985) show that children's perception is confined generally to the roles parents play in discharging their responsibilities as mothers and fathers. But adolescents are more capable of distinguishing parents as persons (with specific needs and feelings) from the roles they play (Youniss and Smollar, 1985). Parents, parenting styles and other features of home/family environment begin to be appraised in the light of developing cognitive and emotional capabilities during early adolescence.

OPERATIONAL DEFINITIONS OF THE VARIABLES:

Perception of home environment refers to children's and adolescents' perception of the extent of punishment, amount of chores at home, parental control, absence of parents, and parent's attitude towards authority figures (Amoroso et al., 1986).

Perception of home environment means the quality and quantity of cognitive, emotional and social support that has been available to the child within the home. It has ten dimensions (**Misra, 2003**). These are –

- a) **CONTROL** - It indicates autocratic atmosphere in which many restrictions are imposed on the offspring by parents in order to discipline them (Misra, 2003).
- b) **PROTECTIVENESS** – It implies prevention of independent behavior and prolongation of infantile care (Misra, 2003).
- c) **PUNISHMENT** – It includes physical and affective punishment to avoid occurrence of undesirable behavior (Misra, 2003).
- d) **CONFORMITY** – It indicates parent's directions, commands, with which the offspring is expected to comply by action. It refers to demands to work according to parents' desires and expectations (Misra, 2003).
- e) **SOCIAL ISOLATION** – It indicates use of isolation from beloved persons except family members for negative sanctions (Misra, 2003).
- f) **REWARD** – It includes material and symbolic reward to strengthen / increase probability of desired behavior (Misra, 2003).
- g) **DEPRIVATION OF PRIVILEGES** – It implies controlling offspring's behavior by parents by depriving them of parental love, respect and care (Misra, 2003).
- h) **NURTURANCE** – It indicates existence of excessive unconditional physical and emotional attachment of parents with the offspring. Parents have a keen interest in and love for the offspring (Misra, 2003).
- i) **REJECTION** – It implies conditional love recognizing that the offspring has no rights as a person, no right to express his or her feelings, no right to uniqueness and to become an autonomous individual (Misra, 2003).
- j) **PERMISSIVENESS** – It includes provision of opportunities to the offspring to express his or her views freely and act according to his or her own desires without interference from parents (Misra, 2003).

In the present context, however, the conceptualization of **Misra (2003)** regarding perceptual home environment and its dimensions will be followed.

Emotional intelligence is the innate potential to feel, use, communicate, recognize, remember, describe, identify, learn from, manage, understand and explain emotions (Hein, 2007). Emotional intelligence affects adolescents' relationship between themselves and with other people. That is

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to say emotional intelligence both defines adolescents' own development and maturity and also adolescents' relationships with others (Akkoc, 2007).

Emotional Intelligence is the measurement of four areas namely intra-personal

awareness, inter-personal awareness, intra-personal management and inter-personal management among Hindi & English knowing 16+ years age of school, college and university students (Mangal and Mangal, 2009).

In the present context, however, the definition put forward by Mangal and Mangal (2009) regarding emotional intelligence will be adhered to.

Researches on the Relation between Perception of Home Environment and Emotional Intelligence in Adolescence:

Singh (1982) studied the causes of children's behavior disorder and found that the affected children present no clinical neurological signs but unfavorable home, school and social environment precipitate the aggressive behavior mainly by the way of loss of temper. Aremu et al. (2004) carried out a study on a sample of 500 senior secondary Nigerian school students aged 14 to 18 years and found that both emotional intelligence and parental involvement(as perceived by the students) could together predict their academic achievement. However, Weinstein et al. (2006) conducted an investigation on samples of high schoolers (8th-9th grade, N=268 and 10th-11th grade, N=240) and did not find significant impact of family support on positive and negative moods. Sharma and Vaid (2005) found in a study on a sample of 100 adolescents' that parental approval does not correlate highly with emotional maturity or self-actualization of the adolescents.

Researches on Prediction of Perception of Home Environment of Adolescents based on their Emotional Intelligence:

Researches on the prediction of adolescents' perception of family (home) environment on the basic of their emotional intelligence are scarce. Perceived family environment has frequently been considered as a predictor (e.g., Hauser et al., 1985; Matherne and Thomas, 2001; and Mohanraj and Latha, 2005). In a few investigations (e.g., Murch and Cohen, 1989) it has emerged as a moderator variable. Only some studies (e.g., Brinson, 1992; and Lubenko and Sebre, 2010) have treated the perception of family environment as dependent variable. So it is obvious that more investigations on the predictions of perception of family environment especially of adolescents are required.

Gender difference has frequently emerged in the relationships among **perceived home environment, emotional intelligence**. Colarossi and Eccles (2000) found supportive relations between parents influenced adolescent girls' self-esteem and depression; perceived parental support impacted girls' peer support. For boys parents' spousal relationships influenced their depression which impacted perceived peer support. Thus predictive models for the genders differed. Jenkins et al.(2002) stated that sons of more educated fathers reported more intimate parental support than did sons of less educated fathers; daughters showed the opposite pattern. For boys (not for girls) conflict-management self efficacy contributed unique variance to depression after intimate support and conflict were controlled. Kenny et al. (2005) concluded

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that girls reported more positive self-images than boys; favorable self-images were associated with secure ratings of parental attachment. **Stewart et al. (2000)** found that in Bangladesh, parenting was warm for girls and dominating/controlling for boys. Girls' (but not boys) perceptions of parents predicted academic achievement and were mediated by self-esteem.

This is because perception of family (home) environment is important in the familial adjustment of adolescents. Distorted perceptions seem to be the roots of frequent conflicts between adolescents and their families. The nature of such perceptions can not be completely explained on the bases of cognitive factors. Emotional factors seem to substantially influence the perception of family environment. Therefore, to what extent emotional intelligence of adolescents account for the perception of their family (home) environment needs to be investigated. Such a study is crucial in the Indian milieu where researches on the perception of family environment are limited in number. If indeed emotional intelligence of adolescents is found to predict their perception of family environment then training programmes to develop these attributes of adolescents would be beneficial in improving the quality of their perception of family (home) environment. It may in turn help improve the family relations of adolescents.

PLAN OF THE WORK

OBJECTIVES:

TO FIND OUT WHETHER ADOLESCENTS'

- i. Perceptions of dimensions of home environment, emotional intelligence influenced by gender.
- ii. Whether adolescents' perception of dimensions of home environment can be predicted by their emotional intelligence.
- iii. The gender difference, if any, in predictions of perceptions of dimensions of home environment of adolescents on the basic of their emotional intelligence.

HYPOTHESES:

- i. There is influence of gender on perceptions of dimensions of home environment, emotional intelligence of adolescents.
- ii. Perceptions of dimensions of home environment of adolescents can be predicted by their emotional intelligence.
- iii. There is gender difference in prediction of perceptions of home environment of adolescents on the basic of their emotional intelligence.

SAMPLE SELECTION AND COMPOSITION:

- i. Stratified random sampling technique was used for sample selection. The strata are based on gender. Lottery technique was used for selection of individuals.

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- ii. Size of the sample is 600. The sample includes equal numbers of early adolescents (12 to 15 years) girls and boys i.e. 300 each.
- iii. The sample comprises of girls and boys studying in reputed English medium schools of Kolkata.
- iv. The subjects belong to middle socio-economic status, urban and nuclear families.
- v. Approximately equal numbers of subjects are selected for inclusion in each stratum from different parts of Kolkata- east, west, north, south and central.

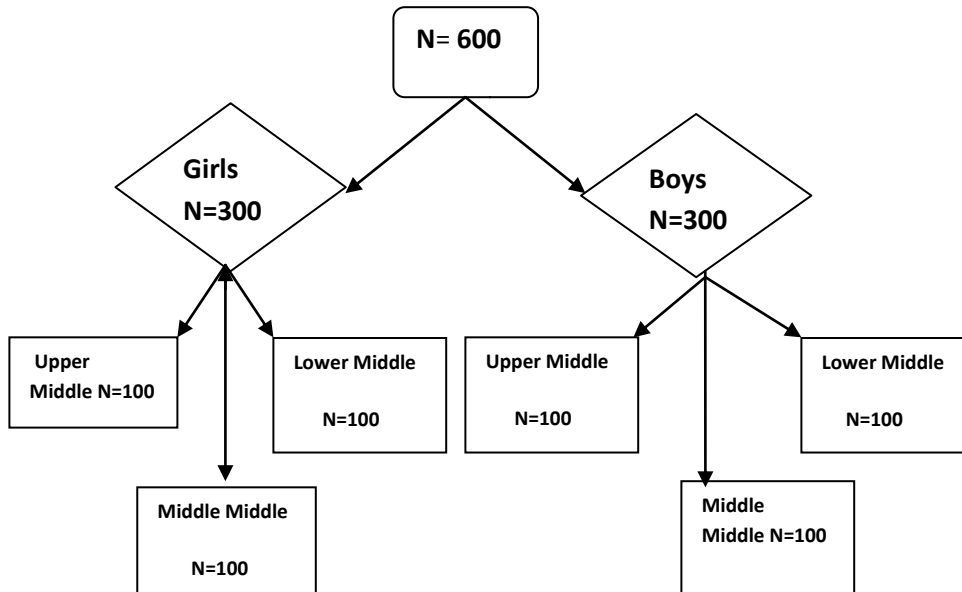


Fig 1 Composition of the Sample

VARIABLES:

PREDICTORS

- i) Emotional Intelligence

DEPENDENT VARIABLE

Dimensions of Perceptions of Home

Environment



- i. Control
- ii. Protectiveness
- iii. Punishment
- iv. Conformity
- v. Social Isolation
- vi. Reward
- vii. Deprivation of Privileges
- viii. Nurturance

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- ix. Rejection
- x. Permissiveness.

Control Variable – Socio-Economic Status of Adolescents, Age, Habitat and Type of schooling and language of instruction at school

TOOLS USED:

- 1) Home Environment Inventory(HEI) by K.S.Misra(2003)
- 2) Mangal Emotional Intelligence Inventory(MEII) by S.K.Mangal and Shubhra Mangal (2009)
- 3) The Socio-Economic Status Scale(SESS) by Dr. Meenakshi(2004)

Design of the Study:

The study would be Co-relational

Procedure of Analysis of the Data:

- i) Mean, S.D.
- ii) One-Way ANOVA.
- iii) Multiple Regression Analysis.

After scoring the standardized tests, the raw scores were obtained. For this, the procedures prescribed in the manuals of the tests were adhered to. However the authors' norms were not consulted in any case. The raw scores of all the subjects were tabulated. Then the computerized statistical analysis of the tabulated data was conducted. For computation of means, S.D., One-Way Analysis of variance and Multiple Regression Analysis, SPSS 16 was used on Windows XP.

First the mean and S.D. values were calculated. The mean and S.D. value were found out not only for the entire sample (N=600) but also separately for the two gender- groups with respect to the three variables under study viz., perceptions of dimensions of environment, emotional intelligence. Then One-Way ANOVA was conducted to study the effects of gender on the above mentioned variables for the entire sample.

After that this was followed by Multiple Regression Analyses which were conducted in order to find out whether the subjects scores on the dependent variable i.e. perceptions of dimensions of home environment could be predicted on the basic of their scores on the predictor i.e. , emotional intelligence. Again, the Multiple Regression Analyses were carried out not only for the entire sample but also for each of the two gender-groups. Finally, Multiple Regression

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Analyses were conducted for the entire sample with the variable of gender being included as a predictor along with emotional intelligence. This was done to find out whether gender influenced the predictions of perceptions of dimensions of home environment of sampled adolescents basic on their emotional intelligence.

PROCEDURE OF DATA COLLECTION:

An appropriate topic was selected for the present research work. The purpose of the study was decided upon after carrying out the review of the literature. The objectives of the study were clarified and hypotheses were formulated. Specific schools and persons were contacted, their permission sought and obtained for data collection. A sample of 600 subjects (300 girls and 300 boys) aged 12 to 15 years belonging to middle socioeconomic status families were selected. The technique of stratified random sampling was followed. three standardized tools were used for data collection. Among these the socioeconomic status scale was used for assessment of socioeconomic status of subjects for the purpose of control. Data were collected from about 25 to 30 students in groups. The venues of data collection were schools. After data collection and scoring, Mean, S.D. and Correlation coefficients were calculated. One-Way ANOVA and Multiple Regression Analysis were conducted. SPSS 16 was used. The obtained results were discussed taking into account the outcomes of the previous studies and conclusions were drawn based on findings.

RESULT AND DISCUSSION

Table -1 , Mean and S.D. values of the Variables

Variable	Entire Sample		Gender Groups			
	N=600		Girls(N=300)		Boys(N=300)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Control	21.57	5.26	21.43	5.48	21.72	5.04
Protectiveness	22.17	5.60	21.93	5.43	22.41	5.77
Punishment	21.51	5.68	21.04	5.70	21.98	5.62
Conformity	22.17	6.06	21.76	5.67	22.57	6.40
Social Isolation	19.18	5.19	19.35	5.38	19.01	5.00
Reward	21.73	5.99	21.59	5.74	21.87	6.23
Deprivation Of Privileges	19.30	5.41	19.28	5.40	19.31	5.43

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Nurturance	20.33	5.40	19.99	5.23	20.67	5.55
Rejection	18.33	4.87	18.54	4.85	18.13	4.89
Permissiveness	20.18	4.72	20.01	4.71	20.35	4.72
Emotional Intelligence	45.37	11.31	45.64	11.23	45.11	11.40

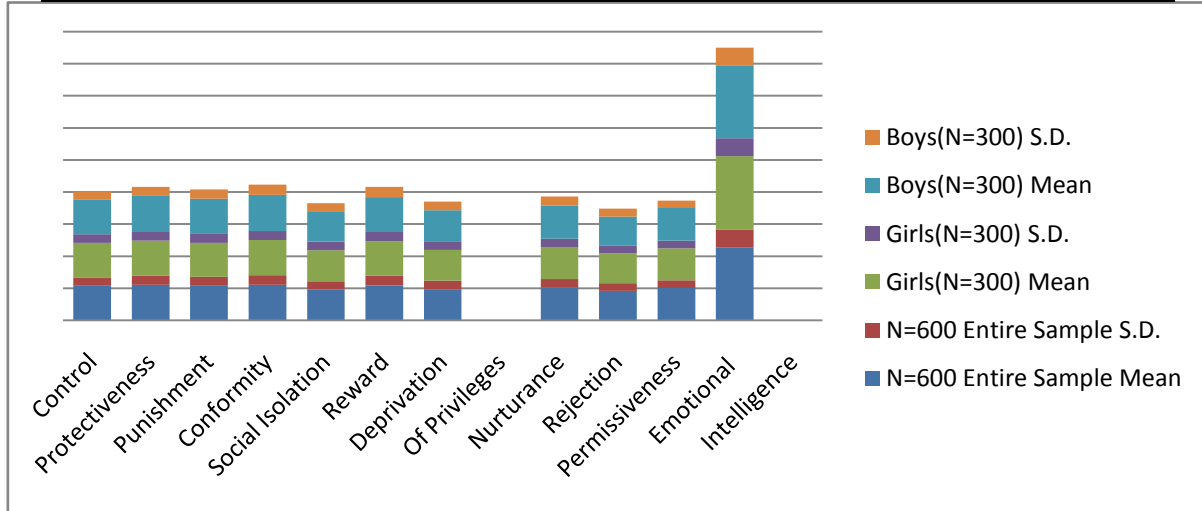


Fig. 2 Mean & S.D. Values of the Variables

From observation of mean and S.D. values (Table 1) it seems that these values do not differ much for the two genders as well as the pooled sample. The S.D. values show moderate homogeneity of variance. It indicates that intra group variability is not high.

Table –2, Effect of Gender on Variables for Entire Sample (N=600): Summarized Results of One-Way ANOVA

Variable	df	F
Control	1,598	0.46
Protectiveness	1,598	1.09
Punishment	1,598	4.14*
Conformity	1,598	2.67
Social Isolation	1,598	0.66

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Reward	1,598	0.33
Deprivation Of Privileges	1,598	0.01
Nurturance	1,598	2.39
Rejection	1,598	1.06
Permissiveness	1,598	0.78
Emotional Intelligence	1,598	0.34

***p<.05**

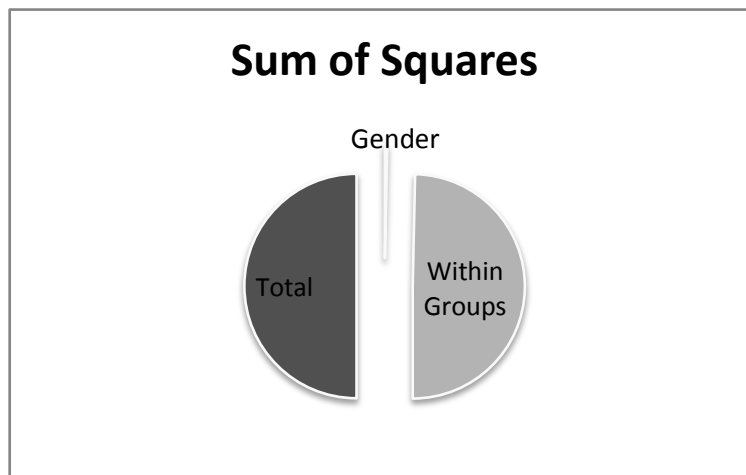


Fig. 3 Partition of Total Variance: Effect of Gender on Perceived Punishment

All the F values (Table 2) are non-significant at .05 level of significance except that for punishment (a dimension of perceived home environment). So it seems that the sampled boys and girls differ somewhat in the perception of extent of being punished by parents. Boys' mean value for punishment appears to be slightly more than that of girls (Table 1). This may because boys tend to perceive being punished more often than girls who are socialized to be less assertive. However, overall, the 1st hypothesis is rejected. The influences of gender on perceptions of dimensions of home environment, emotional intelligence of adolescents have been found to be largely non-significant. This may be because the sampled adolescents belonged to urban, middle socio-economic status families where gender-differentiated socialization is generally not pronounced. However, since significant influence of gender has been reported for the dimension of punishment so the correlations and regressions will be computed separately for the gender-groups.

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Table -3 Summarized Results of Regression: Dimension Scores of Perception of Home Environment (Dependent Variable) of Entire Sample (N=600)

Dependent Variable	Emotional Intelligence		Intercept	R	R ²	df	F
	Regression Coefficient	Std. Error					
Control	0.07	0.02	20.69	0.15**	0.02	2,597	6.87**
Protectiveness	0.11	0.02	18.18	0.21**	0.05	2,597	14.13**
Punishment	0.10	0.02	20.48	0.20**	0.04	2,597	12.81**
Conformity	0.15	0.02	20.76	0.27**	0.07	2,597	23.28**
Social Isolation	0.02	0.02	21.27	0.07	0.004	2,597	1.29
Reward	0.12	0.02	20.68	0.22**	0.05	2,597	14.89**
Deprivation Of Privileges	0.02	0.02	24.29	0.09*	0.01	2,597	2.67
Nurturance	0.08	0.02	15.99	0.17**	0.03	2,597	9.36**
Rejection	0.02	0.02	24.42	0.12**	0.02	2,597	4.55*
Permissiveness	0.05	0.02	21.33	0.13**	0.02	2,597	5.46*

*p<.05; **p<.01

Results of multiple regression analyses with emotional intelligence of adolescents as predictor and the separate dimensions of home environment as dependent variables for the entire sample are presented in Table 3. It shows that except for the dimensions of social isolation and deprivation of privilege, the adolescents' scores in the other dimensions viz., control, protectiveness, punishment, conformity, reward, nurturance, rejection and permissiveness can be significantly be predicted by the predictor- emotional intelligence. This is evident from the significant F values. The 2nd hypothesis is accepted for the entire sample except for the dimensions of social isolation and deprivation of privileges. However the R² values are low. The highest R² value reported is for conformity. It is 0.07 indicating that only 7% of the variance in adolescents' scores on perceived parental expectation for conformity can be accounted for by adolescents' emotional intelligence.

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Table-4 Summarized Results of Regression: Dimension Scores of Perception of Home Environment (Dependent Variable) of Girls (N=300)

Dependent Variable	Emotional Intelligence		Intercept	R	R ²	df	F
	Regression Coefficient	Std. Error					
Control	0.08	0.03	19.95	0.15**	0.02	2,297	3.47*
Protectiveness	0.10	0.03	13.62	0.22**	0.05	2,297	7.23**
Punishment	0.07	0.03	21.36	0.13*	0.02	2,297	2.59
Conformity	0.11	0.03	14.88	0.23**	0.05	2,297	8.31**
Social Isolation	0.05	0.03	26.67	0.17**	0.03	2,297	4.33**
Reward	0.04	0.03	17.16	0.09	0.01	2,297	1.28
Deprivation Of Privileges	0.03	0.03	27.27	0.15**	0.02	2,297	3.36*
Nurturance	0.05	0.03	15.02	0.11	0.01	2,297	1.93
Rejection	0.001	0.03	26.37	0.14*	0.02	2,297	2.79
Permissiveness	0.06	0.02	18.40	0.13	0.02	2,297	2.59

*p<.05; **p<.01

Table 4 reveals that(except for the dimensions of punishment, reward, nurturance, rejection and permissiveness) girls' scores in the other dimensions viz., control, protectiveness, conformity, social isolation and deprivation of privileges can be significantly predicted by the predictor-emotional intelligence of girls. This is apparent from the significant F values for these dimensions. So the 2nd hypothesis is accepted for the dimension of control, protectiveness, conformity, social isolation and deprivation of privileges of the girls. But the R² values are low. Highest R² values are reported for protectiveness and conformity. These are 0.05 showing that only 5% of variance in girls' perception of parental protectiveness and expectation of conformity can be explained on the bases of girls' emotional intelligence scores.

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Table -5 Summarized Results of Regression: Dimension Scores of Perception of Home Environment (Dependent Variable) of Boys (N=300)

Dependent Variable	Emotional Intelligence		Intercept	R	R ²	df	F
	Regression Coefficient	Std. Error					
Control	0.07	0.03	21.38	0.15**	0.02	2,297	3.49*
Protectiveness	0.12	0.03	22.06	0.23**	0.05	2,297	8.54**
Punishment	0.14	0.03	19.89	0.28**	0.08	2,297	12.89**
Conformity	0.18	0.03	25.78	0.33**	0.11	2,297	18.17**
Social Isolation	-0.01	0.03	16.77	0.05	0.002	2,297	0.31
Reward	0.19	0.03	23.54	0.36**	0.13	2,297	21.64**
Deprivation Of Privileges	0.004	0.03	21.85	0.05	0.002	2,297	0.31
Nurturance	0.12	0.03	16.87	0.25**	0.06	2,297	9.47**
Rejection	0.03	0.03	22.69	0.12	0.02	2,297	2.19
Permissiveness	0.05	0.02	23.84	0.15**	0.02	2,297	3.62*

*p<.05; **p<.01

Table 5 shows that(except for the dimension of social isolation, deprivation of privileges and rejection) boys' scores in the other dimensions viz., control, protectiveness, punishment, conformity, reward, nurturance and permissiveness can be significantly predicted by their scores on the predictor- emotional intelligence. This is clear from the significant F values for these dimensions. Thus the 2nd hypothesis is accepted for the dimensions of control, protectiveness, punishment, conformity, reward, nurturance and permissiveness of the boys. However, R² values are low. The highest R² value has been reported for reward. It is 0.13 indicating that only 13% of variance in boys' perception of rewards from parents can be accounted for by the boys' scores on emotional intelligence.

Results (Tables 3 to 5) have largely revealed significant predictions of dimensions of home environment as perceived by adolescents.

In view of the small contributions of emotional intelligence of sampled adolescents to the predictions of adolescents' scores on the dimensions of home

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environment, it seems that inclusion of other relevant variables could enhance the magnitude of the predictions.

Table – 6 Results of Regression Including Gender among Predictors: Dependent Variables- Dimension Scores of Perception of Home Environment (N=600)

Dependent Variable	Gender		Emotional Intelligence		Intercept	R	R ²	df	F
	Regression Coefficient	Std. Error	Regression Coefficient	Std. Error					
Control	0.34	0.43	0.07	0.02	20.21	0.15**	0.02	3,596	4.78**
Protectiveness	0.54	0.45	0.11	0.02	17.41	0.22**	0.05	3,596	9.90**
Punishment	1.01	0.45	0.10	0.02	19.04	0.22**	0.05	3,596	10.24**
Conformity	0.90	0.48	0.15	0.02	19.48	0.28**	0.08	3,596	16.79**
Social Isolation	-0.32	0.42	0.02	0.02	21.73	0.07	0.01	3,596	1.05
Reward	0.36	0.48	0.12	0.02	20.17	0.22**	0.05	3,596	10.10**
Deprivation Of Privileges	0.06	0.44	0.02	0.02	24.21	0.09*	0.01	3,596	1.78
Nurturance	0.72	0.43	0.08	0.02	14.95	0.19**	0.04	3,596	7.18**
Rejection	-0.38	0.40	0.02	0.02	24.96	0.13**	0.02	3,596	3.34*
Permissiveness	0.38	0.38	0.05	0.02	20.78	0.14**	0.02	3,596	3.97*

*p<.05; **p<.01

Table 6 presents the results of multiple regression analyses for the entire sample with gender being included as a predictor alongside emotional intelligence. This was done to test the significance of gender difference in predictions of perceptions of dimensions of home environment of adolescents based on their emotional intelligence. Comparison of Table 3 & 6 showed that inclusion of gender as a predictor (Table 6) did not increase the magnitude of the R² and F values in comparison to those reported in Table 3 where the predictors were emotional intelligence. Gender did not feature as a predictor in Table 3. In fact comparison of R² and F values reported for corresponding dependent variables in Table 3 & 6 reveal that the magnitudes of these values have actually decreased in several cases. Like Table 3, Table 6 also reports non-significant F values only for the dimensions of social isolation and deprivation of privileges. Thus the pattern of results is similar for Table 3 & 6. Moreover, inclusion of gender has actually diminished the predictions. This is corroborated by the comparison of Tables 4 & 5 where the results of predictions for the gender-groups are separately presented. The overviews of

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predictions are not radically different for the two groups. So the 3rd hypothesis regarding gender difference in predictions of perceptions of dimensions of home environment of adolescents based on their emotional intelligence is rejected. This may be because the sampled adolescents belonged to urban, middle socio-economic status families and studied in reputed schools where egalitarian socialization (with respect to gender) is practised as far as possible.

CONCLUSION:

The findings of the research have indicated that gender of the participating young adolescents do not play significant roles in the perceptions of dimensions of their home environment viz., control, protectiveness, conformity, social isolation, reward, deprivation of privileges, nurturance, rejection and permissiveness. This means that these adolescents do not differ by gender in the extent of their perceived parental control over them; parents' safeguarding them; parents' isolating them from beloved persons as punitive measure; parents' rewarding of "good" behaviour; withholding affection and care by parents for disciplining them (adolescents) ; strong physical and emotional bond between parents and offspring; parents' denial of autonomy to the adolescents ; and parents' allowing of freedom to the offspring. This may be a reflection of the largely non-gendered socialization practiced in urban, educated middle socio-economic status families to which the sampled adolescents belong and reputed English-medium schools in which these adolescents study. So it appears that the participating adolescents view their home environment (in terms of the dimensions of experienced control, protectiveness, conformity, social isolation, reward, deprivation of privileges, nurturance, rejection and permissiveness) similarly across the gender divide. There may be inter-individual differences within each gender-group. But the differences between the two gender- groups in respect of the perceptions of these dimensions of home environment are not much.

The results reveal that adolescents' perception of home environment can be significantly predicted by their emotional intelligence scores. It has been also found that the said prediction does **not** differ by gender. Thus it is suggested that the emotional development of boys and girls be fostered in similar ways right from infancy so that their perception of home environment remains free from distortions.

Finally, it appears that holistic development of young people is of paramount importance in a country like India where a large proportion of the populations i.e., 41.1% are below 18 years of age. Early adolescents comprise roughly 12.1% of the population in India (Census of India, 2001). In comparison with cognitive development, emotional development of young people lack emphasis in today's achievement-driven society. The present study has however highlighted the pivotal role played by emotional intelligence in the nature of perception of home environment of early adolescents. It advocates proper development of emotional intelligence of early adolescents for accurate perception of home environment and better parent- adolescent relations.

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Non-inclusion in sample of adolescents of:-

- * Higher and lower socioeconomic status.
- * Semi-urban and rural habitats.
- * Bengali- and Hindi-medium schools.

VIEW POINTS OF STUDY:

*Adolescents' emotional intelligence can be enhanced through programmes incorporating cooperative play, group activities, reading and telling stories, taking care of family members, role playing, relaxation training, counseling etc. These would be beneficial in reducing distortions in adolescents' perception of family/home environment and improving their family relations.

*Counseling of parents is recommended so that there is no discordance between parenting goals and adolescents' expectations.

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Role of Parental Attitude in Development of Aggressive Behavior among Adolescents

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ABSTRACT:

Purpose of the present investigation was to study the role of parental attitude in development of aggressive behavior among adolescents. The sample comprised of 200 (100 male and 100 female) undergraduate students of Aligarh Muslim University Aligarh. Parent-Child Relation Questionnaire (PCRQ) (Singh, 1984) was used for measuring parental attitude and Aggression Questionnaire (Buss & Perry, 1992) was used for measuring adolescents aggression. Pearson Product-Moment Correlation and t-test were used for analyzing the data. Result revealed that there was significant negative correlation between positive parental attitude and aggression. It was also found that there was significant positive correlation between negative parental attitude and aggression. When gender differences was conducted on same sample, it was found that in father's attitude, female students scored significantly higher on only one positive dimension of father's attitude i.e. disciplining out of three positive dimensions (i.e. loving, protecting and disciplining) in comparison to male students, while male students scored significantly higher on only one negative dimension of father's attitude i.e. punishing out of three negative dimensions (i.e. dominating, rejecting, and punishing) in comparison to female students. Similarly, in mother's attitude, the results revealed that female students also scored significantly higher on two positive dimension of mother's attitude (i.e. loving and disciplining) out of three positive dimensions in comparison to male students. The results also showed that male students scored significantly higher on all three negative dimension of mother's attitude in comparison to female students. Further it was found that male students scored significantly higher on all four dimensions of aggression (i.e. physical, verbal, anger and hostility) in comparison to female students.

Keywords: Parental Attitudes, Aggression, Adolescents.

Aggression

The problem of aggression among adolescents is a common mental health issue of present era and interesting research topic for many psychologists.

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The increment in adolescent aggressive behavior during the last decade has intensified the search for predictors of aggressive behaviors. Psychologists are more concerned about the nature, causal factors, severity and the therapeutic approaches for controlling and preventing aggressive behaviors. Aggression is a form of behavior characterized by physical and verbal attack. It may appear either appropriate or self-protected even constructive as in healthy self assertiveness or inappropriate and destructive. Aggression may be directed outward against others or inward, against the self, leading to self-destructive or suicidal actions. It may be driven by emotional arousal often some form of frustration, or it may be instrumental, when it is used to secure a reward.

It is found that over the last few years, aggression and violence levels have drastically increased among adolescents and young adults (Paternite, Simons, & Shore, 2001). The National Center for Education Statistics (National Center for Education Statistics, 2006) reported that 36% of students in grades 9-12 had been in at least one physical fight during the year 2005, which had increased from 33% in 2003. Moreover, from 1985 to 1991, homicide rates increased 154% among 15-19 year-olds (Dahlberg, 1998). A Cross-sectional study was conducted by Sharma, Grover, and Chaturvedi (2008) in South Delhi, India, in which they assessed risk behavior related to interpersonal violence and its epidemiological relationship among 550 adolescents of various schools and colleges aged 14-19 years. Their study revealed that, 65 (11.8%) carrying a weapon in past 30 days, 74 (13.5%) had threatened or injured someone with a weapon and almost one in every two boys (49.1%) reported being involved in a physical fight in past 12 months. They also found significant correlation between interpersonal violence and male gender, lower age, and number of close friends (Frick, & Silverthorn, 2001).

Not surprisingly, an increasing number of children are being referred to mental health services for treatment of their aggressive and antisocial behaviors (Hawkins, Herrenkohl, Farrington, Brewer, Catalano, & Harachi, 1998). It is difficult to isolate an explanation for this increase; however researchers have been able to identify a variety of factors that correlate with aggressive behaviors. Understanding how aggressive behaviors manifest is complex because of the many factors involved such as parental attitudes, family factor, school environment, social factor, personal beliefs and cognitive factor etc. For example, Hawkins et. al. (1998) found a strong correlation between juvenile aggression and child maltreatment, poor family management, family conflict, separation from home, and residential mobility.

Parental Attitude

There is research evidence suggesting that the parenting attitude play important role in development of aggressive behavior. Parenting attitude are the expressions of the values individuals have about raising children and include thoughts, beliefs, and judgments about child care (Holden, & Buck, 2002). Parenting attitude can be negative or positive. It is found that those parents who have positive attitude show warmth, affection, approval and understanding toward their children, they are called **accepting parents**; while on the other hand those parents who are cold, disapproving and punitive toward their child. They do not enjoy their children nor are they

sensitive to their needs, rejecting parents criticize, punish or ignore their children's physical and emotional needs even as limiting their expression of affection and approval. Such parents dislike, disapprove their children are called **rejecting parents**. Rejecting parents express their aggression physically by hitting, pushing, pinching and hurting the child, whereas verbal expression of anger involves sarcastic, cursing, shouting, humiliating, behaviors toward their child. All forms of these behaviors tend to include children to feel unloved or rejected, as a result such children develop usually aggressive and hostile behaviors (Kim, Yeong., & Ge, 2000); (Young, Berenson, Cohen, & Garcia, 2005).

Parents who are rated high on warmth show higher level of concern, involvement and affection toward their children. Warmth may be expressed behaviorally by the parent mainly in terms of higher levels of typical warm behavior e.g., showing more active concern, caretaking and playful joking behavior. All kinds of nurturing, supportive and loving, behaviors are expressions of parental acceptance. On the basis of large number of studies on children's perceptions of parental behavior internationally psychologists suggested that the warmth dimension is more important in the positive development of children (McCauley, Pavlidis, & Kendall, 2001).

Some research suggests that child characteristics such as noncompliance and aggressiveness have been associated with negative parent-child relationships and parenting attitudes (Florsheim, Tolan, & Gorman-Smith, 1998). However, child characteristics are less likely to influence parenting attitudes when the child is of preschool age. When the child is at a young age, parenting attitudes are most likely to reflect perceptions that the parent developed through their personal experiences, such as early childhood experiences and stressful life events (Gerra, Angioni, Zaimovic, Moi, Bussandri, & Bertacca, 2004). Other studies in the child maltreatment literature have shown that negative parenting attitude, such as a disregard for a child's needs, displeasure in the parenting role, and the belief that one's children intentionally annoy you, strengthen the likelihood of poor parenting behaviors within single-mother families. Such type of negative attitude of parents lead to develop more mental health problems such as anxiety, depression and more negative behavior like drug abuse, delinquency, and aggression among adolescents (Muris, Meesters, Schouten, & Hoge, 2004); (Wood, Read, Mitchell, & Brand, 2004).

It was found that the influence of family play important role in development of antisocial behavior among male adolescents, (Larzelere Patterson, 1990); (Farrington, 1995). Different theoretical approaches have focused on the role of family factors in development of aggressive behavior among adolescents, such as social learning theory suggested that parents act as models for violent behaviors that children observe and then imitate. A second theoretical approach emphasizes that aggression emerges as a reaction to unsatisfactory and frustrating relationships with significant others, especially the attachment object, parent child relationship, parental attitudes etc. (Shaw & Bell, 1993). According to Gottfredson and Hirschi' (1990) aggression is caused by low self-control. The major source of low self control is ineffective child rearing, it may be negative parental attitude, low parental supervision, parental support for aggression, punishment for aggressive behaviors, and poor relationship with the parents.

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It is found in various researches that parental monitoring has been inversely associated with antisocial behavior, drug use, tobacco use, and early sexual activity (Patterson, Baryshe Ramsey, 1989; Steinberg, Fletcher, Darling 1994; Biglan, Duncan, Ary, Smolkowski, 1995; Metzler, Neoll, Biglan, Ary, Smolkowski, 1994). Low parental monitoring and poor discipline have also been found to correlate significantly with delinquency among 7th- and 10th-grade boys, and to predict delinquency in 4th-grade boys who were followed through 7th grade (Patterson, Stouthamer-Loeber, 1984). The more removed from parental supervision the adolescent is, the more he or she becomes susceptible to peer influences to engage in violence and other health-compromising behaviors (Steinberg, 1990). Parental communication about behaviors is another parenting practice influencing aggressive behaviors. According to social cognitive theory aggressive behaviors are learned through modeling and reinforcement and parents are model for their children but some times they praise aggressive peer interactions and various high-risk practices such as fighting or “acting tough” (Bandura, 1986). Parents may have considerable influence in development of their children’s risk behaviors by their communications about those behaviors (Cohen, Richardson, LaBree, 1994). While, positive parental attitude, Parental disapproval of aggressive behaviors, combined with parental monitoring and a positive parent child relationship play important role in increasing child’s self-control, reducing the likelihood of aggression and delinquency (Gottfredson, Hirschi, 1990) Parenting styles may be reflected in children’s assessments of how well they get along with their parents (Baumrind, 1991). Adolescents who feel close to their parents consistently show more positive psychosocial development, behavioral competence, and psychosocial wellbeing (Steinberg, 1986). A study of 5th- and 7th-grade boys and girls showed that the child’s perception of positive relations with parents was associated with less disruptive behaviors, less substance use, and less association with deviant peers (Cohen, Richardson, LaBree, 1994). Vissing, Straus, Gelles, and Harrop, (1991) in a national representative sample of parents with children under 18, found higher levels of physical aggression, delinquency, and interpersonal problems among both boys and girls who had experienced verbal aggression from the parents in the form of swear words and insults. Another national study of middle and high school students showed that violence is inversely associated with parent-family connectedness, and that this association was stronger among middle school students than high school students (Resnick et. a., 1997).

It was also found that adolescents who were members of families that were less supportive, discouraging and have negative parent-child relationships, experience more anxiety, depression and developed maladaptive behaviors such as aggression, delinquent behaviors and substance use in comparison to adolescents who were members of families that were supportive, and foster positive parent-child relationships (Florsheim, Tolan, & Gorman-Smith, 1998); (Gerra, Angioni, Zaimovic, Moi, Bussandri, & Bertacca, 2004). Psychologists also emphasized that poor family functioning has a negative effect on adolescent outcomes (Muris, Meesters, Schouten, & Hoge, 2004). Therefore the aim of present investigation is to study the role of parental attitude in development of aggressive behavior among adolescents.

OBJECTIVES OF THE STUDY: Following objectives were formulated for the present study:

1. To find out the relationship between different types of father's attitude and aggressive behavior.
2. To find out the relationship between different types of mother's attitude and aggressive behavior.
3. To find out the significance of difference between male and female students on father's attitude.
4. To find out the significance of difference between male and female students on mother's attitude.
5. To find out the significance of difference between male and female students on aggression.

METHOD

Participants: Sample of the present research paper comprised of 200 (100 male and 100 female) undergraduate students from Aligarh Muslim University Aligarh. The random sampling technique was used for collecting data. Age of the subjects ranged between 19 to 21 years, the mean age being 20.5 years. All the students belonged to upper middle class socio-economic background.

Instruments: The following questionnaires and tests were administered on the participants for the study.

1. **Parental Attitudes Scale:** In order to assess the parental attitudes or child rearing style, parent-child relation questionnaire (PCRQ) developed by Singh (1984) was used. The PCRQ consists of two forms labeled as F-form (father form) and M-form (mother form). Each form has six subscales i.e. loving, dominating, rejecting, protecting, punishing and disciplining. Out of these six dimensions of parental attitudes, three dimensions or subscale are positive (i.e. loving, protecting and disciplining) and other three dimensions or subscale are negative (i.e. dominating, rejecting and punishing). There are 10 items in each subscale with a total of 60 items. Three response categories i.e. 'yes', 'no' and 'doubtful', have been provided against each question. A score of 3, 1 and 2 have been assigned for each positively worded question for yes, no, and doubtful categories respectively. In case of negative items the order is reversed as 1, 3, & 2 respectively. Thus a maximum possible score on each scale is 30 and minimum 10 for both F form and M form. Split half reliability coefficients for different dimensions on both the forms ranged between .75 to .85. The test- retest reliability coefficients ranged between .55 to .68.
2. **Aggression Questionnaire:** The Aggression Questionnaire (Buss, & Perry, 1992) was used for measuring adolescents aggressive behavior. It contains 29 self-report Likert-type items (e.g., "I tell my friends openly when I disagree with them", "Given enough provocation, I may hit another person") assessing cognitive, affective, and behavioral components of this domain. Subscales include Hostility (i.e., hostile cognition), Anger (i.e., hostile affect), Physical aggression, and Verbal aggression. Correlations among components range from .25

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to .48. The factor structure of the AQ has been replicated in several confirmatory analyses (Buss, & Perry, 1992). Its internal consistencies was ranging from .53 to .85.

Analysis: Product Moment Correlation and t-test were used to analyze the data.

RESULTS

Table: 1. Correlation between Parental Attitude and Aggression.

Father's Attitude	Aggression			
	Physical	Verbal	Anger	Hostility
Loving	-.320**	-.433**	-.383**	-.368**
Dominating	141*	278**	241**	281**
Rejecting	295**	283**	261**	318**
Protecting	-275**	-344**	-354**	-338**
Punishing	287**	309**	305**	342**
Disciplining	-169*	-107	-130	-181*
Mother's Attitude				
Loving	-.522**	-.613**	-.607**	-.590**
Dominating	230**	313**	307**	340**
Rejecting	354**	458**	447**	521**
Protecting	-389**	-486**	-482**	-452**
Punishing	231**	257**	293**	320**
Disciplining	-147*	-165*	-113	-146*

****p<.01; *p<.05**

From the above table it is found that there is significant negative correlation between father's positive attitude and aggression. In other words, there is a significant negative correlation between two positive dimensions (i.e. loving and protecting) of fathers attitudes out of three positive dimensions (i.e. loving, protecting and disciplining) and different dimensions of aggression (i.e. physical, verbal, anger and hostility) scores. While third positive dimension of father's attitude (i.e. disciplining) was significantly negatively correlated with only two

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dimension of aggression i.e. physical and hostility out of four dimension (i.e. physical, verbal, anger and hostility). It is also observed from the table that there is a significant positive correlation between all three negative dimensions (i.e. dominating, rejecting and punishing) of fathers negative attitude and different dimensions of aggression (i.e. physical, verbal, anger and hostility) scores.

Similarly, it is also found that there is significant negative correlation between all two positive dimensions of mother's attitude (i.e. loving and protecting) and different dimensions of aggression (i.e. physical, verbal, anger and hostility) scores. While third positive dimension of mother's attitude (i.e. disciplining) was negatively correlated with three dimensions of aggression i.e. physical, verbal and hostility out of four dimension (i.e. physical, verbal, anger and hostility).

It is also apparent from the table that there is a strong significant positive correlation between all three negative dimensions (i.e. dominating, rejecting and punishing) of mothers negative attitude and all dimensions (i.e. physical, verbal, anger and hostility) of aggression.

Table-2: Comparison of Male and Female Students on Different dimensions of Parental Attitude and Aggression Scores. N=200 (Male-100, Female-100).

Variables	Group	Mean	S.D.	t-value	df	Sig.
Father's Attitude						
Loving	Male	24.32	4.18	.65	198	NS
	female	23.95	3.17			
Dominating	Male	21.14	4.89	.15	198	NS
	Female	21.04	4.01			
Rejecting	Male	25.12	5.19	1.94	198	NS
	Female	23.71	5.06			
Protecting	Male	22.94	3.77	.63	198	NS
	Female	23.27	3.56			
Punishing	Male	23.94	5.01	2.66	198	.01
	Female	22.13	4.58			
Disciplining	Male	18.20	4.04	2.62	198	.01

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	Female	19.63	3.65			
Mother's Attitude						
Loving	Male	22.81	4.45	2.90	198	.01
	Female	24.54	3.95			
Dominating	Male	21.95	3.83	3.17	198	.01
	Female	19.98	4.86			
Rejecting	Male	23.24	4.67	4.54	198	.01
	Female	20.06	5.19			
Protecting	Male	22.24	4.21	.39	198	NS
	Female	22.46	3.75			
Punishing	Male	22.68	4.20	4.08	198	.01
	Female	19.97	5.12			
Disciplining	Male	16.61	4.07	2.14	198	.05
	Female	17.76	3.48			
Aggression						
Physical	Male	27.08	7.20	3.50	198	.01
	Female	23.85	5.76			
Verbal	Male	26.07	7.55	2.16	198	.05
	Female	23.87	6.76			
Anger	Male	28.52	7.94	2.80	198	.01
	Female	25.68	6.23			
Hostility	Male	30.32	8.50	3.90	198	.01
	Female	25.92	7.41			

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Table-2 shows that there is a significant difference between male and female students on only one positive dimension of father's attitude i.e. disciplining out of three dimensions. In other words female students scored significantly higher on disciplining attitude of father as compared to male students. It is also apparent from the table that there is a significant difference between male and female students on only one negative dimension father's attitude i.e. punishing out of three dimensions. In other words, male students scored significantly higher on punishing attitude of father as compared to female students.

Similarly, the table also shows that there is a significant difference between male and female students on two positive dimensions of mother's attitude i.e. loving and disciplining out of three dimensions. In other words female students scored significantly higher on loving and disciplining attitude of mother as compared to male students. It is also apparent from the table that significant difference was found between male and female students on all three negative dimensions of mother's attitude i.e. dominating, rejecting and punishing. Male students scored significantly higher on all three negative dimensions of mother's attitude as compared to female students.

It is also apparent from above table that there is a significant difference between male and female students on all four dimensions of aggression i.e. physical, verbal, anger and hostility. In other words male students scored significantly higher on all dimensions of aggression as compared to female students.

DICUSSION

The first objective of the present study was to examine the relationship between parental attitude and aggression among undergraduate students. Positive parental attitude (both father and mother) play important role in adolescents positive growth and development as well as protecting them from different types of mental health problems like anxiety, depression, drug abuse, delinquency and aggressive behavior. The results of the study indicate that positive parental attitudes was negatively correlated with aggressive behavior of adolescents. This study is supported by the findings of the earlier study for example McCauley, Pavlidis, & Kendall, (2001) found that positive parental attitude such as nurturing, supportive, loving and warmth behaviors of parents play more important role in positive development of children. Bean et. al. (2006), also found in their study that when youths feel that their parents are supportive, caring, and loving towards them they experience low level of depression.

While negative parental attitudes (both father and mother), on the other hand, may lead to more mental health problem and aggressive behavior. In the present study negative parental attitudes was found to be positively correlated with aggression. This study is supported by a number of earlier studies (Kim, Yeong., & Ge, 2000); (Young, Berenson, Cohen, & Garcia, 2005). They found that negative parental attitude lead to more aggressive behavior among children, they also observed that those children who feel unloved or rejected and punished by their parent such children more develop aggressive and hostile behaviors. In a study Hawkins et. al. (1998) also

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found a strong correlation between juvenile aggression and child maltreatment, poor family management, family conflict, separation from home, and residential mobility.

The other objective of this study was to find out the gender differences in parental attitude and aggression among same sample. When gender differences was investigated on above sample, it was found

that female students scored significantly higher on only one positive dimension of father's attitude i.e. disciplining out of three dimensions as compared to male students. While, male students scored significantly higher on one negative attitude of father i.e. punishing out of three negative dimensions as compared to female students.

Similarly, the result also showed that female students scored significantly higher on two positive dimensions i.e. loving and disciplining attitude of mother out of three positive dimensions as compared to male students. Whereas, male students scored significantly higher on all three negative dimensions of mother's attitude i.e. dominating, rejecting and punishing as compared to female students.

On the basis of above results and discussion, it is apparent that parents (both father and mother) have more positive attitude towards their female students as compared to male students. Whereas, it was also clear that for male students, parental attitude (both father and mother) are more negative as compared to female students. One important finding of this study is that mother's positive attitudes are more important and significant effect on adolescents positive growth and development as well as it enhanced individuals mental health and wellbeing as compared to father's attitudes. Although, negative parental attitudes both father and mother are equally influence in development of negative behavior of adolescents. As, other important finding of this study is that mother's negative attitudes lead to more negative behavior like aggression of adolescents as compared to father's attitudes. This may be the reason that male students committed more aggressive behavior as compared to female students. Since, it was found in gender differences that male students scored significantly higher on all four dimensions of aggression i.e. physical, verbal, anger and hostility as compared to female students. This study is supported by earlier study (Bingham et. al., 2006). Sekuk; Rimfat and Ogbonna (2003) noted that until recently male adolescents were by far more involved in delinquent acts than female. In a study Okpako, (2004) and Otuadah (2006) found that boys with poor parental background and negative parental behavior became more school dropouts, committed more delinquent and aggressive behavior etc as compared to boys with strong family background and positive parental behavior.

CONCLUSION

On the basis of above results and discussion it is concluded that positive parental attitude (both father and mother) play important role in protecting individuals from different type of mental health problems and negative behavior like delinquency and aggression, as it was found in this

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study that positive parental attitudes was negatively correlated with aggression. While negative parental attitude (both father and mother) play a crucial role in developing aggressive behavior among adolescents, as it was found in present study that negative parental attitude was positively correlated with aggression. Similarly, it is also concluded on the above results and discussion that mother's attitude are more important in experienced of aggression among adolescents as compared to fathers attitude. As it is clear from this study that mothers negative attitudes play significant role in developing aggressive behavior among adolescents.

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Social Interaction Anxiety between HIV Positive and HIV Negative Adults: A Comparative Study

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ABSTRACT:

The present research aims to examine the nature of social interaction anxiety in HIV positive adults and HIV negative adults as well as the effect of gender on social interaction anxiety (SIA). This study attempts to focus on some of the specific aspects of SIA that distinguish the HIV positive adults from the HIV negative adults and thus, place the former at a higher risk of further health care problems. A sample (N =60) of 30 HIV positive adults (15 men and 15 women) and 30 HIV negative adults (15 men and 15 women), aged between 18 to 25 years, responded to the Social Interaction Anxiety Scale (SIAS) (Mattick & Clarke, 1998). Findings indicated that the HIV positive adults reported higher *social interaction anxiety* than the HIV negative adults. Specifically, the HIV positive adults experienced higher levels of *worry and tension*, higher anxiety with respect to *interpersonal skills*, and *greater fear of being judged* than the HIV negative adults. The present study calls for further research to be done on the impact of social, economic, environmental (rural and urban) and educational backgrounds, family settings, personality and self-esteem of HIV positive adults on SIA.

Keywords: *Anxiety, HIV*

Social interaction anxiety is defined as extreme distress when initiating and maintaining conversations with friends, strangers, or potential mates (Mattick & Clarke, 1989). Being the third largest mental health care problem in the world today (Richard, 2010), social anxiety is the fear of social situations that involve interaction with other people. Put another way, social anxiety is the fear and anxiety of being judged and evaluated by other people. People with social anxiety are many times seen by others as being shy, quiet, backward, withdrawn, inhibited, unfriendly, nervous, aloof, and disinterested. Ironically, people with social anxiety want to make friends.

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They want to be included in groups, and be involved in social interactions but having social anxiety prevents these people from being able to do the things they want to do. Although people with social anxiety want to be social, open and friendly, it is fear (anxiety) that holds them back. People with social anxiety usually experience significant distress in many situations including being introduced to other people, being teased or criticized, being the centre of attention, being watched or observed while doing something, having to say something in a formal, public situation, meeting people in authority, etc.

HIV, the virus that causes AIDS, “acquired immunodeficiency syndrome” (UNAIDS, 2012), has become one of the world’s most serious health and development challenges. The first cases were reported in 1981 and today, more than 30 years later, there are approximately 34 million people currently living with HIV and nearly 30 million people have died of AIDS-related causes since the beginning of the epidemic (UNAIDS, 2011, 2012). Young people bear the brunt of the global HIV/AIDS epidemic, with youth under the age of 25 accounting for approximately 40% of all new HIV infections each year (UNAIDS, 2012). Those between the ages of 15-24 are particularly hard hit, especially girls and young women who comprise the majority of young people living with the disease. While cases have been reported in all regions of the world, almost all those living with HIV (97%) reside in low- and middle-income countries. In India, the Government of India estimates that about 2.40 million Indians are living with HIV (1.93 - 3.04 million) with an adult prevalence of 0.31% in 2009. Of these 83% are in the age group 15-49 years with, 39% (930,000) of HIV infections affecting women (World Bank, 2012).

Dealing with HIV can be an emotionally fraught business for those afflicted (Galloway, 2012). It is all-too-easy for the negative thoughts, worry, fear and stress to compromise dealing with the disease. Those afflicted with HIV often need to keep up with a regimen of medications taken at regular intervals, attend regular medical appointments, deal with the change to their treatment and the illness such as changes in symptoms or changed bodily sensation, all of which can easily prey on their mental state. With a compromised immune system, what were ordinary illnesses to cope with on their own can now become deadly. This knowledge may reinforce feelings of anxiety and depression. Thus, the impact of the disease is not only an immunological one but also elicits mental and social responses of fear, denial, stigma and discrimination.

Studies have shown that anxiety disorders are much higher in the seropositive individuals of populations when compared with their normative counterparts (Ceisla & Roberts, 2001; Wainberg et al., 2008; Imasiku, 2009). These disorders include panic disorder, generalized anxiety disorder, obsessive compulsive disorder and post traumatic stress disorder (Vitiello & Bing, 2003; Gonzalez et al., 2010, 2012.) Gonzalez et al. (2010) found that higher levels of HIV symptom distress were related to higher levels of panic disorder, social anxiety disorder and depression symptoms, while Vitiello & Bing’s (2003) studies have shown that among HIV-infected patients receiving medical care, 20.3% have an anxiety disorder, with 12.3% meeting the criteria for panic disorder, 10.4% for PTSD, and 2.8% having generalized anxiety disorder.

AIDS stigma exists around the world in a variety of ways including ostracism, rejection, discrimination and avoidance of HIV infected people; compulsory HIV testing without prior consent or protection of confidentiality; violence against HIV infected individuals or people who are perceived to be infected with HIV; and the quarantine of HIV infected individuals. Stigma-related violence or the fear of violence prevents many people from seeking HIV testing, returning for their results, or securing treatments, possibly turning what could be a manageable chronic illness into a death sentence and perpetuating the spread of HIV. The stigma associated with HIV is so stark that most often people do not want to seek out treatment in their own district (Kumar, World Vision, 2012).

Anxiety especially among those that have recently been diagnosed with HIV has been shown to be more prevalent among patients with stress or excess social stigma related to their diagnosis. A substantial proportion of HIV-positive individuals report experiencing HIV/AIDS stigma by noticing that others avoid being near them or exclude them from social events because of their HIV status (Vanable, Carey, Blair & Littlewood, 2005).

Members of the American Journal of Psychiatry found, in their most recent study (2011) a higher rate of anxiety symptoms in HIV seropositive women. Women are particularly vulnerable since they are faced with specific burdens when living with HIV. They often feel isolated and experience shame, stigma, anxiety and feelings of ambivalence and, in addition, are challenged in their roles as caregivers, mothers and wives (Chung & Magraw, 1992). A study by Lekganyane and Plessis (2012) showed that HIV related stigma was experienced by women with a sense of loss that gave rise to feelings of fear and shame. To cope with this, women isolate themselves, become secretive about their health, disclose strategically and enlisted support.

Among HIV-positive men who have sex with men, internalized stigma is associated with higher anxiety, (Lee, Kochman & Sikkema, 2002) which could be in part due to social anxiety about being judged negatively for being HIV positive. They also found that the higher social interaction anxiety among men who have sex with women than among men who have sex with men, which may be due to the higher internalized stigma among heterosexual than among non-heterosexual HIV-positive populations. HIV/AIDS stigma may be associated with greater social anxiety among HIV-positive populations in general, thereby potentially increasing risky sexual behaviour (Hart, James, Purcell & Farber, 2008).

To help patients receive optimal care, clinicians need to be aware of the differences among these specific disorders. Furthermore, patients with histories of anxiety or mood disorders are susceptible to recurrence of anxiety symptoms during the course of HIV illness. Patients with limited social support may be particularly susceptible to developing anxiety symptoms. Most studies on negative affect and HIV risk have focused on the role of depression and anxiety but not social interaction anxiety. Given the paucity of research in this area and the potential importance of social interaction anxiety as a mental health factor affecting the fear of stigma and

rejection of HIV people the current study examined the presence of social interaction anxiety in HIV positive adults and HIV negative control group. The study explored the following question – Does HIV status affect social interaction anxiety?

Objectives

Specifically the objectives of the current research are

- To assess the difference in social interaction anxiety between HIV positive adults and HIV negative adults.
- To assess the difference in social interaction anxiety between HIV positive men and women.

HYPOTHESES

- H1a. There will be a significant effect of *HIV status* (viz. HIV negative and HIV positive) of the adults on *social interaction anxiety*.
- H1b. There will be a significant effect of *HIV status* (viz. HIV negative and HIV positive) of the adults on *worry and tension* (F1).
- H1c. There will be a significant effect of *HIV status* (viz. HIV negative and HIV positive) of the adults on *interpersonal skills* (F2).
- H1d. There will be a significant effect of *HIV status* (viz. HIV negative and HIV positive) of the adults on *discomfort in social situations* (F3).
- H1e. There will be a significant effect of *HIV status* (viz. HIV negative and HIV positive) of the adults on *fear of communication* (F4).
- H1f. There will be a significant effect of *HIV status* (viz. HIV negative and HIV positive) of the adults on *fear of being judged* (F5).
- H1g. There will be a significant effect of *HIV status* (viz. HIV negative and HIV positive) of the adults on *fear of talking to the opposite sex* (F6).
- H2a. There will be a significant effect of *gender* (viz. male and female) of the adults on *social interaction anxiety*.
- H2b. There will be a significant effect of *gender* (viz. male and female) of the adults on *worry and tension* (F1).
- H2c. There will be a significant effect of *gender* (viz. male and female) of the adults on *interpersonal skills* (F2).
- H2d. There will be a significant effect of *gender* (viz. male and female) of the adults on *discomfort in social situations* (F3).
- H2e. There will be a significant effect of *gender* (viz. male and female) of the adults on *fear of communication* (F4).
- H2f. There will be a significant effect of *gender* (viz. male and female) of the adults on *fear of being judged* (F5).
- H2g. There will be a significant effect of *gender* (viz. male and female) of the adults on *fear of talking to the opposite sex* (F6).
- H3a. There will be a significant interaction effect of *HIV status* and *gender* of the adults on *social interaction anxiety*.
- H3b. There will be a significant interaction effect of *HIV status* and *gender* of the adults on *worry and tension* (F1).

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- H3c. There will be a significant interaction effect of *HIV status* and *gender* of the adults on *interpersonal skills* (F2).
- H3d. There will be a significant interaction effect of *HIV status* and *gender* of the adults on *discomfort in social situations* (F3).
- H3e. There will be a significant interaction effect of *HIV status* and *gender* of the adults on *fear of communication* (F4).
- H3f. There will be a significant interaction effect of *HIV status* and *gender* of the adults on *fear of being judged* (F5).
- H3g. There will be a significant interaction effect of *HIV status* and *gender* of the adults on *fear of talking to the opposite sex* (F6).
- H4. There will be a significant difference between HIV positive men and HIV positive women with respect to *social interaction anxiety*.

METHOD

Study Design

The present study used a between-group design to find the difference in Social Interaction Anxiety (SIA) between HIV positive and HIV negative adult men and women. This study also adopted a within-group design to measure the difference in social interaction anxiety between HIV positive men and women.

Sample

The sample consisted of 30 men and 30 women aged between 18-25 years. The sampling technique used to select the groups of participants was purposive sampling. The sample was collected from Freedom Foundation and ACCEPT in Bengaluru. After obtaining approval from the authority at Freedom Foundation and ACCEPT in Bengaluru 30 participants were chosen from these two organisations.

The Inclusion criteria was 15 out of the 30 men were HIV positive and 15 out of the 30 women were HIV positive; the rest were HIV negative. Every member was between the age groups of 18-25 years and was either HIV positive or HIV negative.

The Exclusion criteria was individuals below the age of 18, above the age of 25 or who suffer from any psychotic disorders were not included in the sample.

Instrument

The Demographic information collected from the sample was Gender and Age. The sample was administered the Social Interaction Anxiety Scale (SIAS) which was developed and published by Mattick and Clarke in 1998 and has been used to assess the prevalence of social interaction anxiety. The SIAS consists of twenty items that are rated from 0 (not at all characteristic or true of me) to 4 (extremely characteristic or true of me). Items are self-statements describing one's representative reaction to situations that involve social interaction in dyads or groups. The SIAS is scored by summing the ratings (after reversing the 3 positively worded items number 5, 9 and

11). Total scores range from 0 to 80, with higher scores representing higher levels of social interaction anxiety. The Cronbach's alpha for this instrument ranged from .88 - .93, test retest correlation coefficient exceeded .90 after intervals of 1 and 3 months, and the reliability was 0.67 – 0.90.

For the purpose of the study, indepth analysis was done by using factor analysis. The researcher identified six factors, namely (F1) Worry and Tension, (F2) Interpersonal Skills, (F3) Discomfort in Social Situations, (F4) Fear of Communication, (F5) Fear of Being Judged, and (F6) Fear of Talking to the Opposite Sex. Factor 1 consisted of 7 items (viz. Item nos.2, 4, 6, 8, 13, 18, and 19). Factor 2 was composed of 4 items (viz. Item nos.5, 9, 10, and 11). Factor 3 had 3 items (viz. Item nos.7, 15, and 16). Factor 4 consisted of 3 items (viz. Item nos. 3, 12, and 17). Factor 5 had 2 items number (viz. Item nos. 1 and 20) and Factor 6 had 1 item (viz. Item no.14). For the purpose of the study every item was scored, and the total of all the 20 items for every participant was computed. This gave the total SIA score. In addition, the factor-wise totals were computed for every participant.

Ethical Issues

Informed Consent was taken from every participant and confidentiality was maintained. The date and time was adjusted according to their convenience. The participant was told that they are free to withdraw from the study whenever he/she wanted to.

Procedure

The test was administered on a one to one basis. Each participant was approached individually and was briefed about the purpose of the study. The consent was taken before commencement and the participant was allowed to withdraw from the study whenever he/she pleased. Instructions were read out by the researcher in order to clear all doubts. The questionnaire was given and the subject was asked to answer the questionnaire carefully based on personal experience. The participant was asked to work through the items as accurately as possible, indicating a cross mark against the appropriate answer. All doubts and any kind of ambiguity that arose in the participant's mind were clarified. After the test was administered, the researcher expressed her gratitude to the participant for his/her cooperation. Questionnaires were collected, the responses were scored, and statistically analysed using descriptive statistics (Mean and Standard Deviation) and inferential statistics (ANOVA and t-test).

Statistical Treatment

The data was analyzed using descriptive statistics (Mean and Standard Deviation) and inferential statistics (ANOVA and t-test). Univariate Analysis of Variance was conducted for testing the difference between the variances of the groups of adults categorized on the basis of *HIV status* and *gender*. T-test was computed to test the difference between HIV positive men and HIV positive women in terms of social interaction anxiety.

RESULTS AND INTERPRETATION

Table 1 – Means and standard deviations of social interaction anxiety and the six factors of social interaction anxiety for the HIV negative and HIV positive adults (N=60).

Factors	HIV Status			
	HIV Negative Adults		HIV Positive Adults	
	(N=30)		(N=30)	
	Mean	SD	Mean	SD
Social Interaction Anxiety (Total)	18.567	10.689	30.500	5.238
Worry and Tension (F1)	4.367	3.996	9.500	2.933
Interpersonal Skills (F2)	4.000	2.889	9.500	2.209
Discomfort in Social Situations (F3)	3.000	2.691	4.100	2.187
Fear of Communication (F4)	3.800	2.552	4.167	1.599
Fear of Being Judged (F5)	2.333	1.936	3.633	1.402
Fear of Talking to the Opposite Sex (F6)	1.067	1.311	1.100	0.845

Table 2 – Means and standard deviations of social interaction anxiety and the six factors of social interaction anxiety for the male and female participants (N=60).

Factors	Gender			
	Males		Females	
	(N=30)		(N=30)	
	Mean	SD	Mean	SD
Social Interaction Anxiety (Total)	24.200	11.081	24.867	9.609
Worry and Tension (F1)	6.833	4.403	7.033	4.335
Interpersonal Skills (F2)	6.267	3.877	7.233	3.655
Discomfort in Social Situations (F3)	3.567	2.609	3.533	2.417
Fear of Communication (F4)	4.233	2.096	3.733	2.149
Fear of Being Judged (F5)	2.867	1.756	3.100	1.863
Fear of Talking to the Opposite Sex (F6)	1.067	1.229	1.100	0.959

Table 3 – Results of Univariate ANOVA with HIV Status and Gender as IVs and the six factors & total of Social Interaction Anxiety as the separate DVs

Source	DVs	Type III SS	df	Mean Square	F	p
HIV Status	Social Interaction Anxiety (Total)	2136.067	1	2136.067	29.164**	0.000
	Worry and Tension (F1)	395.267	1	395.267	32.067**	0.000
	Interpersonal Skills (F2)	453.750	1	453.750	70.453**	0.000
	Discomfort in Social Situations (F3)	18.150	1	18.150	2.916	0.093
	Fear of Communication (F4)	2.017	1	2.017	0.442	0.509
	Fear of Being Judged (F5)	25.350	1	25.350	8.621**	0.005
	Fear of Talking to the Opposite Sex (F6)	0.017	1	0.017	0.013	0.91
Gender	Social Interaction Anxiety (Total)	6.667	1	6.667	0.091	0.76
	Worry and Tension (F1)	0.600	1	0.600	0.049	0.83
	Interpersonal Skills (F2)	14.017	1	14.017	2.176	0.15
	Discomfort in Social Situations (F3)	0.017	1	0.017	0.003	0.96
	Fear of Communication (F4)	3.750	1	3.750	0.822	0.37
	Fear of Being Judged (F5)	0.817	1	0.817	0.278	0.600
	Fear of Talking to the Opposite Sex (F6)	0.017	1	0.017	0.013	0.91
HIV Status x Gender	Social Interaction Anxiety (Total)	0.600	1	0.600	0.008	0.93
	Worry and Tension (F1)	21.600	1	21.600	1.752	0.19
	Interpersonal Skills (F2)	8.817	1	8.817	1.369	0.25
	Discomfort in Social Situations (F3)	0.150	1	0.150	0.024	0.88
	Fear of Communication (F4)	3.750	1	3.750	.822	0.37
	Fear of Being Judged (F5)	0.150	1	0.150	0.051	0.82
	Fear of Talking to the Opposite Sex (F6)	0.417	1	0.417	0.333	0.57

****p<0.01**

Table 3 shows significant main effects of *HIV status* on *social interaction anxiety* (SIA) ($p < 0.01$), *worry and tension* (F1) ($p < 0.01$), *interpersonal skills* (F2) ($p < 0.01$), and *fear of being judged* (F5) ($p < 0.01$). Thus, **hypotheses H1a, H1b, H1c, and H1f were accepted**. In other words, this study reported significant effects of:

- *HIV status* (viz. HIV negative and HIV positive) of the adults on *social interaction anxiety*.
- *HIV status* (viz. HIV negative and HIV positive) of the adults on *worry and tension* (F1).
- *HIV status* (viz. HIV negative and HIV positive) of the adults on *interpersonal skills* (F2).
- *HIV status* (viz. HIV negative and HIV positive) of the adults on *fear of being judged* (F5).

The mean scores in Table 1 indicated that HIV positive adults ($M = 30.500$) experienced higher *social interaction anxiety* than the HIV negative adults ($M = 18.567$). Moreover, the HIV positive adults experienced higher levels of *worry and tension* (F1) ($M = 9.500$), higher anxiety with respect to *interpersonal skills* (F2) ($M = 9.500$) and greater *fear of being judged* (F5) ($M = 3.633$) than the HIV negative adults ($M = 4.367$, $M = 4.000$, $M = 2.333$ respectively).

On the other hand, Table 3 shows no significant effects of *HIV status* on *discomfort in social situations* (F3) ($p > 0.05$), *fear of communication* (F4) ($p > 0.05$), and *fear of talking to the opposite sex* (F6) ($p > 0.05$). Thus, **hypotheses H1d, H1e, and H1g were rejected**. Similarly, the results revealed no significant effects of *gender* (viz. male and female) of the adults on *social interaction anxiety* (SIA), *worry and tension* (F1), *interpersonal skills* (F2), *discomfort in social situations* (F3), *fear of communication* (F4), *fear of being judged* (F5), and *fear of talking to the opposite sex* (F6) at 0.05 level of significance ($p > 0.05$). Additionally, Table 3 indicated no significant interaction effects of *HIV status* and *gender* of the adults on *social interaction anxiety* and the six factors of social interaction anxiety (F1 – F6) at 0.05 level of significance ($p > 0.05$). Hence, **hypotheses H2a – H3g were rejected**.

As the results revealed significant effects of *HIV status* (viz. HIV negative and HIV positive) of the adults on *worry and tension* (F1), *interpersonal skills* (F2), and *fear of being judged* (F5), further statistical analysis was conducted on these three factors. For every item of F1 (viz. Item nos. 2, 4, 6, 8, 13, 18, and 19), F2 (viz. Item nos. 5, 9, 10, and 11), and F5 (viz. Item nos. 1 and 20), the percentage of HIV positive and HIV negative adults responding to option 2 ('**Moderately** characteristic or true of me'), or option 3 ('**Very** characteristic or true of me'), or option 4 ('**Extremely** characteristic or true of me') was calculated. These participants were assumed to be experiencing higher social interaction anxiety than those who responded to options 0 ('**Not at all** characteristic or true of me') or 1 ('**slightly** characteristic or true of me'). This was done to analyse the specific aspects of social interaction anxiety that significantly differentiate the HIV positive and HIV negative adults. The results are displayed in Table 4 – Table 6.

Table 4 – Percentage of HIV negative and HIV positive adults displaying high anxiety on the items of Factor 1 (Worry and Tension)

HIV Status	Worry and Tension (F1)						
	Item 2	Item 4	Item 6	Item 8	Item 13	Item 18	Item 19
HIV Negative (N=30)	20%	6.60%	20%	20%	26.70%	10%	13.30%
HIV Positive (N=30)	43.30%	40%	50%	36.70%	40%	36.60%	46.70%

Table 5 – Percentage of HIV negative and HIV positive adults displaying high anxiety on the items of Factor 2 (Interpersonal Skills)

HIV Status	Interpersonal Skills (F2)			
	Item 5	Item 9	Item 10	Item 11
HIV Negative (N=30)	20%	36.60%	23.40%	43.30%
HIV Positive (N=30)	90.10%	93.30%	46.60%	96.70%

Table 6 – Percentage of HIV negative and HIV positive adults displaying high anxiety on the items of Factor 5 (Fear of Being Judged)

HIV Status	Fear of Being Judged (F5)	
	Item 1	Item 20
HIV Negative (N=30)	36.70%	30%
HIV Positive (N=30)	13.30%	30%

Table 4 and Table 5 indicate that remarkably higher percentages of HIV positive adults responded to options 2, or 3, or 4 for all the items of worry and tension (F1) and interpersonal skills (F2) than HIV negative adults. Thus, as opposed to the HIV negative adults, the HIV positive adults experienced higher anxiety in the following areas social interaction:

- difficulty making eye contact with others (F1 – Item 2)
- difficult mixing comfortably with colleagues (F1 – Item 4)
- feeling tense when meeting with an acquaintance in the street (F1 – Item 6)

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- feeling tense when alone with just one other person (F1 – Item 8)
- finding it difficult to disagree with another's point of view (F1 – Item 13)
- worrying about being ignored when mixing in a group (F1 – Item 18)
- tense mixing in a group (F1 – Item 19)
- ease of making friends of one's own age (F2 – Item 5)
- ease of meeting people at parties, etc. (F2 – Item 9)
- facing difficulty talking with other people (F2 – Item 10)
- ease of thinking of things to talk about (F2 – Item 11)

Table 6, on the other hand, indicates that the percentage of HIV positive and HIV negative adults responding to options 2, or 3, or 4 for Item No. 20 is identical (i.e., 30%). However, the percentage of HIV negative adults (36.7%) responding to options 2, or 3, or 4 for Item No. 1 ('I get nervous if I have to speak with someone in authority') is higher than the percentage of HIV positive adults (13.3%).

In addition to the above analysis, t-test was computed to test the significance of difference between HIV positive men and HIV positive women in terms of *social interaction anxiety*. The results are displayed below.

Table 7 – Means, standard deviations and t-ratio of Social Interaction Anxiety for HIV Positive Men and HIV Positive Women

Gender	Mean	S.D.	t	Mean Difference	df	p
HIV Positive Men (N=15)	30.067	4.891	0.447	0.867	28	0.658
HIV Positive Women (N=15)	30.933	5.701				

Table 7 reveals that HIV positive men and HIV positive women did not differ significantly on *social interaction anxiety* ($p > .05$). In other words, the levels of *social interaction anxiety* experienced by both the groups were similar, inferring that both the sexes are more or less equally affected by this healthcare problem. Thus, **hypothesis H4 was rejected**.

The results are discussed in the following section.

DISCUSSION

Very few studies are available which are focused on HIV men and women and the presence of Social Interaction Anxiety in them. The objective of the present research endeavour was to assess the difference in social interaction anxiety between HIV positive adults and HIV negative adults. This study also aimed to observe whether HIV positive men and women differ with

respect to the level of social interaction anxiety.

The present study reported that HIV status has a significant effect on *social interaction anxiety*. The results revealed that Social Interaction Anxiety of HIV negative adults is lower than the Social Interaction Anxiety of HIV positive adults. This anxiety may be because of the stigma attached to HIV status. This confirms with Grant & Atkinson (1995) study of psychiatric aspects of AIDS which revealed that over 20% of seropositive adults have been reported to experience anxiety symptoms at least once a month compared with negligible rates in the community among low risk controls. The present study also corroborates with the past research that HIV positive individuals experience a high level of anxiety (Ceisla & Roberts 2001; Wainberg et al., 2008; Imasiku, 2009; Vitiello & Bing, 2003; Gonzalez et al., 2010, 2012.)

The present study shows significant effects of HIV status on *worry and tension* (F1). This was confirmed by Galloway (2012), who said dealing with HIV can be an emotionally fraught business for those afflicted. The HIV positive adults experienced higher anxiety in the following areas of social interaction. 43.3% of the HIV positive adults found difficulty making eye contact with others (F1 – Item 2) as compared to the 20% of HIV negative (N = 30) adults. 40 % of the HIV positive adults found it difficult mixing comfortably with colleagues (F1 – Item 4) as compared to 6.6% of the HIV negative adults. 50% of the HIV positive adults felt tensed when meeting with an acquaintance in the street (F1 – Item 6) as compared to 20% of HIV negative adults. 36.7% of the HIV positive adults felt tensed when alone with just one other person (F1 – Item 8) as compared to 20% of HIV negative adults. 40% of the HIV positive adults found it difficult to disagree with another's point of view (F1 – Item 13) as compared to 26.7% of the HIV negative adults. 36.6% of the HIV positive adults, when mixing in a group found themselves worrying they will be ignored (F1 – Item 18) as compared to 10% of HIV negative adults. Lastly, 46.7% of the HIV positive adults felt tense mixing in a group (F1 – Item 19) as compared to the 13.3% of HIV negative adults.

Previous research has revealed that psychologically, HIV-related stigma can generate significant distress in the form of depression, anxiety, and lowered self-esteem (Lee, Kochman, & Sikkema, 2002; Stutterheim et al., 2009; Vanable, Carey, Blair, & Littlewood, 2006). Manifestations of stigma include avoidance, exclusion, rejection, isolation, social ostracism, blaming, violence, service denial, physical distance, indifference, awkward social interaction, and being advised to conceal one's status (Stutterheim et al., 2009). Relevant settings in which stigmatization can occur are with families, in communities, among friends and acquaintances, with sexual partners, in health care settings, with respect to housing, in the financial services sector, within religious institutions, at work, while travelling or migrating, and in educational settings (Greeff et al., 2008; Malcolm et al., 1998; Shamos, Hartwig, & Zindela, 2009; Stutterheim et al., 2009; Varas-Diaz, Serrano-Garcia, & Toro-Alfonso, 2005).

The present study shows significant effects of HIV status on *interpersonal skills* (F2). Hart, et al., (2008) suggest that Social Anxiety influences the patterns of interpersonal behaviour of HIV positive adults. In the current study, the HIV positive adults experienced higher anxiety in the

following areas of social interaction. Almost more than 90% of the HIV positive adults found it difficult to make friends of one's own age (F2 – Item 5), to meet people at parties, etc. (F2 – Item 9), and to think of things to talk about (F2 – Item 11) when compared with 40% of HIV negative adults. 46.6% of the HIV positive men had difficulty talking with other people (F2 – Item 10) as compared to 23.4% of the HIV negative adults. This is confirmed by Vanable *et al.* (2005) who found that a substantial proportion of HIV positive individuals report experiencing HIV-AIDS stigma by noticing that others avoid being near them or exclude them from social events because of their HIV status. It also negatively impacts social interactions between people living with HIV (PLWH) and others, and can result in decreased social network size, limited social support, and social isolation (Lee & Craft, 2002; Lichtenstein, Laska, & Clair, 2002). Clearly, the negative consequences of stigmatization toward PLWH are substantial. Because PLWH are often acutely aware of the public stigma surrounding HIV, the impact of stigma can also come from an anticipation of negative reactions from others if their condition is known. This anticipation can cause PLWH to live in secrecy and constantly be concerned about their condition being revealed (Black & Miles, 2002; Steward *et al.*, 2008; Weiss, Ramakrishna, & Somma, 2006).

The present study shows significant effects of HIV status on *fear of being judged* (F5). However, further analysis shows that a higher percentage of HIV negative adults (36.7%) than HIV positive adults (13.3%) have expressed a fear dealing with authority (F5 – Item 1). This leads us to assume that fear of dealing with authority is not dependent on HIV status. Equal percentages of both the groups (30%) have exhibited anxiety on Item No.20. i.e., “I am unsure whether to greet someone I know only slightly”. Regarding this aspect, the study suggests that perhaps an indepth analysis conducted on a larger sample encompassing other personality correlates could give a clearer picture.

Additionally Table 3 indicated no significant effects of gender of the adults on social interaction anxiety and the six factors of social interaction anxiety. Similarly, no significant interaction effects of HIV status and gender were found on the dependent variable. Since previous research (Chung & Magraw, 1992; American Journal of Psychiatry, 2011; Lekganyane & Plessis, 2012) found that HIV positive women are particularly vulnerable and face isolation, shame, fear and feelings of ambivalence, the researchers were curious to find whether there are significant differences in the presence of social interaction anxiety between HIV positive women and men. But Table 7 shows that with regards to gender, HIV positive men and HIV positive women did not differ significantly with respect to *social interaction anxiety*. In other words, there was no significant difference between the SIA exhibited by HIV positive men and HIV positive women inferring that both the sexes are more or less equally affected by the stigma, discrimination and the rejection by the others. This may be because, both HIV positive males and females seem to experience extreme discomfort in social situations and have a tendency to be disengaged or avoid them altogether. Social interaction tension, fears and hence avoidance behaviours can be expected to interfere with the initiation of positive social encounters and the development of close relationship with others. While investigating SIA among the Chinese adolescents, in a

cross-sectional health survey conducted in Guangzhou city of the Guangdong Province in high school students aged 13 to 18 years, Peng et al. (2011) found that there were no significant results in gender related to SIA. Analyses by Garcia et al. (2005) revealed no significant interactions between gender and social anxiety with alcohol usage. That gender did not have an effect on social anxiety and its relationship to hazardous drinking and drinking problems was also confirmed by Benavides *et al.* (2005)

CONCLUSIONS

Hypotheses **H1a, H1b, H1c, and H1f were accepted**. In other words, this study reported significant effects of:

- *HIV status* (viz. HIV negative and HIV positive) of the adults on *social interaction anxiety*.
- *HIV status* (viz. HIV negative and HIV positive) of the adults on *worry and tension* (F1).
- *HIV status* (viz. HIV negative and HIV positive) of the adults on *interpersonal skills* (F2).
- *HIV status* (viz. HIV negative and HIV positive) of the adults on *fear of being judged* (F5).

This study has uniquely contributed to our understanding that there are significant effects of *HIV status* (viz. HIV negative and HIV positive) especially on the factors of *worry and tension*, and *interpersonal skills*. Since SIA can emerge in a range of situations, essentially whenever we are in contact with other people, the following areas and behaviours can be worked on and helped through counselling to further follow up for health care and can be used for therapeutic purpose:

- making eye contact with others (F1 – Item 2)
- mixing comfortably with colleagues (F1 – Item 4)
- feeling tense when meeting with an acquaintance in the street (F1 – Item 6)
- feeling tense when alone with just one other person (F1 – Item 8)
- finding it difficult to disagree with another's point of view (F1 – Item 13)
- worrying about being ignored when mixing in a group (F1 – Item 18)
- feeling tense when mixing in a group (F1 – Item 19)
- ease of making friends of one's own age (F2 – Item 5)
- ease of meeting people at parties, etc. (F2 – Item 9)
- facing difficulty talking with other people (F2 – Item 10)
- ease of thinking of things to talk about (F2 – Item 11)

The results revealed no significant effects of *HIV status* on *discomfort in social situations* (F3) ($p>0.05$), *fear of communication* (F4) ($p>0.05$), and *fear of talking to the opposite sex* (F6) ($p>0.05$). Thus, **hypotheses H1d, H1e, and H1g were rejected**. Similarly, the results revealed no significant effects of *gender* (viz. male and female) of the adults on *social interaction anxiety* (SIA), *worry and tension* (F1), *interpersonal skills* (F2), *discomfort in social situations* (F3), *fear*

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of communication (F4), fear of being judged (F5), and fear of talking to the opposite sex (F6) at 0.05 level of significance ($p > 0.05$). Additionally, Table 3 indicated no significant interaction effects of *HIV status* and *gender* of the adults on *social interaction anxiety* and the six factors of social interaction anxiety (F1 – F6). Thus, **hypotheses H2a – H3g were rejected**. Lastly, the results showed no significant difference between HIV positive men and HIV positive women with respect to *social interaction anxiety*. Thus, **hypothesis H4 was rejected**.

RECOMMENDATIONS

The sample was recruited from two NGOs primarily serving patients diagnosed with Aids. Age and Gender were considered for this investigation. Based on the findings, the study recommends further research with a sample consisting of adults with different social, economic, environmental (rural and urban) and educational backgrounds, family settings, personality and self-esteem. A relationship between social interaction anxiety symptoms and measures of physical symptoms can also be explored.

IMPLICATIONS

Apart from highlighting the presence of the third largest mental health care problem in the world, this study throws light on the anxiety, worry and tension, and decreased interpersonal skills of HIV positive adults (18 to 24 years). Educating people about HIV/AIDS and how it can be prevented is complicated in India, as a number of major languages and hundreds of different dialects are spoken within its population. This means that, although some HIV/AIDS prevention and education can be done at the national level, many of the efforts are best carried out at the state and local level. The third stage of the National AIDS Control Programme (NACP-III) was launched in 2006 and continues to run currently. Increased psychological support services for both men and women living with HIV and the interventions by health care services and counsellors should be further commissioned and planned.

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Blocking Possibilities

Jyotirmoy Sarkar¹

ABSTRACT:

Education is a very essential part of our life. To know ourselves better, to know the society better, we have to be educated, without education progress is not possible. Every person has the right to be educated. Every person has the right to attend school, college and university.

We should have some minimum qualification so that we don't face any problem in bank, post office and such official works and also we can better understand the society, the economy, the politics etc, but above all the practical application of our knowledge is very much necessary, the more higher our qualification is the more responsibility we have to make the proper application of our knowledge.

Now a day's few people are doing higher degrees either to get a good reputation in society or to be qualified as a good bride or groom, neither they are trying for job nor they are applying their knowledge in any field, actually they are blocking a seat in College and University in this tough competition era and so blocking the possibility of making proper application of that opportunity they have got.

Keywords: *Academic Achievement, Self-assessment, Social awareness, Consciousness.*

Different Types of Needs:

We have to earn and for that we have to be self-dependent because it's necessary part of our life and to do that we need a minimum qualification. Generally the minimum qualification for job is graduation. Those who want to be self dependent, those who want to do job can be classified in two categories----one, those whose financial condition is not good at all so by doing a job and earning money they want to support their family financially, and second types are those whose financial condition is good but they want to be independent.

Those whose financial conditions are not good, generally they try for job after completing graduation and if they get any job before graduation they join the job so that they can support their family financially. There are few persons among these, those who have interest in study that's why it can be found later that those study interested persons carry on their study after gaining a stable financial condition. Those whose financial condition is good, they start searching jobs after graduation and parallel they continue their master degree course. If such people get job in graduation degree then they complete their master degrees either in own interest or for promotion in job.

¹ Science Graduate

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The upper mentioned processes are very general processes but very much necessary for our life and it's natural. Generally most of the people do so.

Those who have hunger for knowledge, those who have huge interest to enrich their knowledge generally carry on their study after getting jobs, sometime due to pressure in work field or to perform their duties and responsibilities they can't continue their higher studies but they carry on their studies by their own urge. There are few persons who have interest in research so they go for it after achieving the degree.

The Problem:

But there is another type of people who—does hard work to secure very good marks in class x standard exam then they take admission in a famous schools and again do hard work to secure very good marks in class XII standard exam ,they secure good marks then they take admission in a good college and after that in university and in master degree they secure good marks doing hard work and -----after completing graduation/master degree with good marks this type of girls are seen to be get married with a person with good qualification and salary ,these type of girls neither can be seen to take preparation for job nor can after marriage they are trying for jobs, and after one or two years of marriage they can be seen with their own child in their lap-----this is a fact and it can be seen around us.

Now the question is—is there any necessity of graduation or master degree to become a mother of a child or to bring up a child. If we analyze it with logic then we will understand that there is no necessity of it.

The primary and important teachings a child should get from his /her mother are moral values, ethics, manners etc, is graduation or master degree necessary to teach these things? As per our present education system, there is no subject, no teaching, no process to evaluate our moral values, ethics manners etc. There is no process in our educational system to analyze our morals, ethics, manners etc and to give a final mark sheet on character upon those evaluations.

So logically it means that if after achieving a higher degree we don't use it for a good purpose, if we don't make practical application of it, those degrees are being locked in the locker of almirah----then what is the necessity to achieve such higher degrees?

Wrong Message:

Now let's see what can be the negative side of such works....now a day's competition is very tough, we also know that the seat limits in college and university is very limited, Now after securing good marks a student takes admission in a good college then again securing good marks that student takes admission in a good university and then after collecting the mark sheets and certificates that student keeps those certificate and mark sheet in the safety locker of almirah because she is married now. To collect those mark sheets and certificates she has been blocking a seat for long time and ultimately she makes no practical application of her long time hard work. It could happen that the seat she has been blocking for long could have been given to another student just one or two marks less than her and that student could make his/her carrier in the study field or by doing practical application of his/her knowledge in any field. May be being a self dependent person or in research field or teaching others or in business field etc. Those who are blocking a seat till university level; and then making no practical application of their knowledge, those who are reading only to earn degrees---actually destroying a good possibility, nothing more than it. Most importantly, the message they are giving to the society can't be called a positive message. What can we learn from them?-----make good result in classes then celebrate it with friends and relatives and family then make good result in class X, Class XII

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,graduation and in university and again and again celebrate with close ones and if you do this then a notion in the mind of the people will grow that one day you will do something good or it can be said in another way that after securing good marks celebrating with close ones is actually a means to spread the message that how much good student you are .to secure a good position in the society, intentionally create a sense in the mind of neighbors and relative that how much meritorious student you are, -----and one day suddenly get married if you get a boy with good salary and good job and there is no need to fight or to try for job or to do something independently before or after marriagethis is the teaching they are giving to the society. Sometime these types of girls get married because their friend is getting married and these types of thoughts come into mind due to the lack of self--assessment and a huge interest in show off, yes it's true that some time due to some emotional pressure they have to get married but as I have mentioned earlier that after marriage they are not seen to apply their knowledge, they are not seen to make proper use of their mark sheets they have collected after a long fight. The most interesting fact is these types of girls can't be called as less meritorious students rather some of them are really meritorious and some have average merit, that's why it is matter to feel sorry for them as we are losing a good student.

But for all these we can't blame some girls only, some boys have fault also. Now a day's brides with master degrees are much in demand, otherwise second chance have those brides who has graduation degrees....because it's all about show off in society, having a wife with higher qualification increases the status in the society and its less matters to them how her character is, this is the thought of some people and for all this demands some girls are studying only to earn a degree, especially those who are like minded with those boys, actually they don't have any planning to apply their knowledge in any field. Marriage is a mental and spiritual connection between two people and also between two families, now will this mental and spiritual connection is stronger if the girl is a master degree holder or a graduate? Actually nobody can give a good logic that what is the relation between marriage and higher degrees? I am talking about marriage, not about a mutual understanding between two people.

CONCLUSION:

These types of behavior are actually comes from lack of consciousness, lack of self-assessment and specially from a weak mentality, everyone wants to secure their life and when it is become secured then less number of people have the mentality to work for the society to try to make something good to the society and to the people. Self-assessment, self-analysis, good ethics and moral values etc should teach in school and colleges and every student should know how to apply their knowledge for the well fare of the society and for the people, social consciousness is very much necessary in this tough competition era.

We can't blame anybody particularly, actually we all have some faults—the wrong message will be spread in society and one day it will be the rule of the society until we all try to make ourselves correct .

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Gender Differences in Statistics Anxiety with Undergraduate College Students

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ABSTRACT:

This empirical study examined gender differences in statistics anxiety with 156 undergraduate college students (48 males, 107 females) from a liberal arts college in the United States. Students completed surveys regarding number of prior statistics classes completed and statistics anxiety. Three subscales of the Statistical Anxiety Rating Scale (STARS; Cruise, Cash, and Bolton, 1985) which measures statistics anxiety were used. No gender differences were obtained for the Worth of Statistics and Computation Self-Concept subscales. Females had greater anxiety on the Test and Class Anxiety subscale than males. For males, no significant correlations were obtained between statistics anxiety and course grades. For females, significant correlations were obtained between Worth of Statistics and course grades ($r = .230, p < .05$) and Computation Self-Concept and course grades ($r = .226, p < .05$).

Keywords: *Statistics anxiety, Gender differences, Undergraduate college students*

College students are required to enroll in a statistics class as part of their degree program (Finch & Jameson, 2007; Hilton, Schau, & Olsen, 2004; Keeley, Zayac, & Correia, 2008; Onwuegbuzie & Wilson, 2003; Zeidner, 1991). Many of these student often experience statistics anxiety (Hsiao & Chiang, 2011; Mji & Onwuegbuzie, 2004), because “statistics courses are often viewed by most college students as an obstacle standing in the way of attaining their desired degree” (Perney & Ravid, 1990, p. 2). Williams (2010) indicates that “students with statistics anxiety tend to expect high levels of discomfort while in class, taking tests, and doing statistical computations” (p. 13). Since taking a statistics course is often an overwhelming negative experience, many students delay taking a statistics class, which in turn delays the attainment of the educational degree (Finch & Jameson, 2007; Galli, Ciancaleoni, Chiesi, & Primi, 2008; Onwuegbuzie & Wilson, 2003). Thus, understanding about a student’s level of anxiety that may be generated through statistics classes may help college professors find ways to reduce the level of anxiety and enhance the learning experienced by their students (Baharun & Porter, 2009).

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Cruise, Cash & Bolton (1985) define statistical anxiety as “the feelings of anxiety encountered when taking a statistics course or doing statistical analyses” (p. 92). Onwuegbuzie, DaRos, and Ryan (1997) defined statistics anxiety as “a state-anxiety reaction to any situation in which a student is confronted with statistics in any form and at any time” (p. 28). Schau, Stevens, Dauphinee, & Del Vecchio (1995) identified four components as a measure of attitude towards statistics: affect, cognitive competence, value, and difficulty. Zeidner (1991) indicates that “statistics anxiety may be construed as a particular form of performance anxiety characterised by extensive worry, intrusive thoughts, mental disorganization, tension, and psychological arousal” (p. 319). Zanakis & Valenzi (1997) have identified six components as a measure of statistical anxiety and attitudes towards statistics: Student interest in and perceived worth of statistics, anxiety when seeking help for interpretation, computer usefulness and experience, understanding, test anxiety, and math anxiety. Finch & Jameson (2007) state

...while statistics anxiety has been described in various ways over time, there are certain commonalities that appear to be present across definitions: psychological stress, fear of academic failure and feelings of incompetence (p. 185).

There is a body of research that indicates that there is a relationship between statistics anxiety and attitudes towards statistics with college students. DeVaney (2010) in a study of 27 on-campus (5 male, 22 female) and 93 online graduate students (18 male, 75 female) found that an inverse relationship between statistics and attitudes towards statistics with “...students in the online classes generally had higher levels of anxiety and less favorable attitudes towards statistics” (p. 9). Perepiczka, Chandler, & Becerra (2011) in a study of 166 graduate students (30 male, 136 female) found a negative correlation between statistical anxiety and self-efficacy to learn statistics ($r = -.679$), a positive correlation between self-efficacy to learn statistics and attitudes towards statistics ($r = .708$), with statistics anxiety and attitudes towards statistics negatively and significantly correlated ($r = -.832$). Additionally, statistics anxiety and attitudes towards statistics were statistically significant predictors of self-efficacy to learn statistics. Dempster & McCorry (2009) found that attitudes towards statistics and prior experience of mathematics and statistics were predictors of statistics assessment at an undergraduate level. Mills (2004) found that students who felt confident about being able to master material in an introductory statistics class exhibited very positive attitudes about statistics. Lacasse & Chiochio (2005) in a study of 68 students (14 male, 54 female) found a negative relationship between statistics anxiety and attitudes towards learning statistics ($r = -.41$, $p < .05$). They indicate that “anxiety towards statistics negatively affects performance, interest, and desire to learn statistics in a psychometrics class” (p. 3).

Gender differences in Statistics Anxiety

Research on statistics anxiety with undergraduate college students has found mixed results. Some research has indicated that females experience greater levels of statistical anxiety than males. In a study of 40 postgraduate students (17 males, 21 female) enrolled in statistics at University of Wollongong, Baharun & Porter (2009) found that males have significantly more

confidence on their understanding of statistics topics (producing and interpreting scatterplots and correlations, writing meaningful paragraphs about variables, and less anxious about working with numbers) than females. Vahedi, Farrokhi & Bevrani (2011) in a study of 300 undergraduate students (133 male, 165 female) from Tabriz University in Iran using the Statistics Anxiety Measure (SAM) found that "...female students reported more negative attitude towards class than male students" (p. 96). Papanastasiou & Zembylas (2008) in a study of 472 undergraduate students (87.3% female) who had completed a research methods class at the University of Cyprus found that males had lower levels of anxiety compared to females. Additionally, both males and females were most similar in their responses on the question "research is difficult" and had the highest discrepancy on the question "research scares me." Anxiety was positively correlated with the final grade in the class ($r = .292, p < .01$). Similar results were obtained by DeCesare (2007) who found that "females reported feeling more anxious than males." (p. 363).

While the research above has found that females have more statistics anxiety than males, other research has found no gender differences in statistics anxiety (Lacasse & Chiochio, 2005; Onwuegbuzie, 2004; Zhang et al., 2012). In a study of 77 graduate students (19% male, 81% female) in Taiwan, Hsiao & Chiang (2011) found no difference between male and females with statistics anxiety on the Statistical Anxiety Rating Scale. Evans (2007) in a study of 115 undergraduate students (35 male, 80 female) from randomly selected statistics classes, found "students exhibited no significant change in attitudes and conceptions towards statistics over the course of the semester" (p. 26); however, significant correlations were found between course grades and initial and final student attitudes ($r = .203$). Bui & Alfaro (2011) in a study of 104 participants (23 males, 76 females) found that while most participants in their study had moderate statistics anxiety, no differences between males and females for all six subscales of the STARS. Similar results were obtained by Mji (2009) who found no gender differences in attitudes and attitudes towards statistics.

OBJECTIVES

The main objectives of this empirical study are:

- a. To study gender differences in statistics anxiety with undergraduate college students, and
- b. To study the relationship between statistics anxiety and course grades.

RESEARCH QUESTIONS

Given the mixed research on gender differences and anxiety towards statistics, it was felt that this study would contribute significantly to the body of literature. Of interest were the following research questions:

1. Would there be differences between male and female undergraduate college students with regard to statistics anxiety?
2. Would there be differences in statistics anxiety between students who have not taken a statistics class versus those who have taken a statistics class?
3. What is the correlation between statistics anxiety and course grades (GPA) for male and female undergraduate college students?

METHOD

Sample

There were 156 undergraduate college students from the northeast United States who were surveyed. The students ranged in age from 17 to 50 (mean age = 22.17, SD = 6.77). There were 48 males (30.8%) and 107 females (68.6%) in the study, with 1 student not disclosing their gender. Grade point average (GPA) for males ranged from 2.20 to 4.00 (Mean = 3.18, SD = .46) and for females ranged from 2.00 to 4.00 (Mean GPA = 3.31, SD = .47). Students represented a variety of academic disciplines, ranging from social sciences, nursing, business, exercise science, humanities, undecided, and other. Two students did not disclose their major.

With regard to number of statistics classes taken, 25 (52.1%) of males had taken no statistics classes, 22 (45.8%) had taken one statistics class, and 1 (2.1%) had taken two statistics classes. With females, 44 (41.1%) had taken no statistics classes, 58 (54.2%) had taken one statistics class, and 5 (4.7%) had taken two statistics classes.

Measuring Tools

Students were administered a demographic information questionnaire that asked about age, gender, major, grade point average (GPA), and number of prior statistics classes taken.

Statistical Anxiety Rating Scale (STARS)

The Statistical Anxiety Rating Scale (STARS) was administered to the students. The scale was developed by Cruise, Cash & Bolton (1985) and “was developed to measure statistical anxiety” (p. 92). The STARS consists of 51 items which represent 6 subscales. For the present study, three sub-scales of the STARS were used: Worth of Statistics, Computation Self-Concept, and Test and Class Anxiety (Table 1).

Table 1. Descriptions of the Subscales Used in the Current Study

Subscale Descriptions and Examples	Number of Items	Range of scores
Worth of Statistics “This factor has to do with the student’s perception of the relevance of statistics” (Cruise, Cash, & Bolton, 1985, p.93). I feel statistics is a waste. I don’t want to learn to like statistics. Statistics takes more time than it’s worth.	16	16-80
Computation Self-Concept “This factor involves anxiety experienced when doing mathematical problems as well as the student’s self-perception of his/her ability to understand and calculate statistics” (Cruise, Cash, & Bolton, 1985, p. 93). I don’t have enough brains to get through statistics. I’m too slow in my thinking to get through statistics.	7	7-35

Statistics isn't really bad. It's just too mathematical.

Test and Class Anxiety

8

8-40

"This factor deals with the anxiety involved
when taking a statistics class or test"

(Cruise, Cash, & Bolton, 1985, p. 93)

Studying for an examination in a statistics class.

Enrolling in a statistics course.

Doing the homework for a statistics course.

Subjects respond to the items on a 5 point scale, where 1 = strongly disagree, 5 = strongly agree. For the Test and Class Anxiety subscale, subjects respond on a 5 point scale, where 1 = No anxiety and 5 = High anxiety. Based on the scoring provided by Cruise, Cash, & Bolton (1985), a low score on each subscale indicates low anxiety, while as a high score on each subscale indicates high anxiety. Keeley, Zayac, & Correia (2008) using Cronbach's alpha report the reliability of the Worth of Statistics scale to be .94, Computation Self-Concept to be .88, and Test and Class Anxiety Scale to be .88.

In order to obtain additional information on statistics anxiety, students were asked the following open-ended question, "*What are your feelings/reactions to taking or having taken a statistics class at the college?*" Gal & Ginsburg (1994) indicate that a minimum requirement for an instrument that measures beliefs and attitudes should combine Likert-type items with open-ended questions, where students can explain their beliefs, feelings, concerns, emotional responses, and attitudes towards the subject.

RESULTS

Gender Differences in Statistics Anxiety

No significant gender differences were obtained overall for the Worth of Statistics subscale, $F(1, 142) = .08$, $p > .05$. For overall Computation Self-Concept subscale, no significant gender differences were obtained, $F(1, 147) = .83$, $p > .05$. Significant gender differences were obtained with the Test and Class Anxiety subscale, $F(1, 149) = 13.73$, $p < .01$, indicating that females had a more negative attitude and higher anxiety on this subscale than males (Table 2).

Table 2. Means, Standard Deviations, and F Test Results for Males and Females for the Three Subscales of the STARS

	Male (n = 48)	Female (n = 107)	F
Worth of Statistics			
Mean	53.38	54.18	.08
SD	16.21	15.77	
Computation Self-Concept			
Mean	22.63	23.66	.83
SD	6.81	6.15	
Test and Class Anxiety			
Mean	20.21	25.48	13.73 **
SD	6.70	8.53	

** $p < .01$

A closer examination of the individual items of the STARS (Table 3) indicates that females scored significantly higher than males for the following item of the Computational Self-Concept subscale, “I haven’t had mathematics in a long time. I know I’ll have problems getting through statistics.” Females also scored higher than males on the following items of the Test and Class Anxiety Subscales: “Walking in a classroom to take a test”, “Doing a final examination in a statistics course” “Studying for an examination in a statistics course” “Waking up in the morning on the day of a statistics test” and “Finding that another student in class got a different answer than you did to a statistical problem.”

Table 3. Means, Standard Deviations, and F Test for Males and Females for the Three Subscales of the STARS.

Items for the STARS Subscale	Males (n = 48)		Females (n = 107)		F
	Mean	SD	Mean	SD	
Worth of Statistics Subscale					
I feel statistics is a waste.	3.47	1.25	3.39	1.20	NS
I wish the statistics requirements would be removed from my academic program.	3.20	1.23	3.28	1.31	NS

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I am never going to use statistics, so why should I have to take it?	3.43	1.20	3.34	1.32	NS
I don't understand why someone in my field needs statistics.	3.52	1.25	3.37	1.33	NS
Statistics takes more time than it's worth.	3.31	1.23	3.35	1.25	NS
Statistics is a grind, I could do without.	3.31	1.18	3.21	1.27	NS
Since I am by nature a subjective person, the objectivity of statistics is inappropriate for me.	3.33	1.20	3.49	1.16	NS
I don't want to learn to like statistics.	3.31	1.30	3.44	1.24	NS
I can't tell you why but I just don't like statistics.	3.22	1.34	3.27	1.25	NS
I don't see why I have to clutter my head up with statistics. It has no significance to my life work.	3.66	1.52	3.58	1.50	NS
I wonder why I have to do all these things in statistics when in actual life I'll never use them.	3.37	1.31	3.44	1.25	NS
Affective skills are important in my profession that I do not want to clutter my thinking with something as cognitive as statistics.	3.10	1.20	3.40	1.17	NS
I lived this long without knowing statistics. Why should I learn it now?	3.35	1.26	3.37	1.27	NS
Statistical figures are not fit for human consumption.	3.33	1.35	3.62	1.18	NS
Statistics is for people who have a natural learning towards mathematics.	3.08	1.71	3.09	1.28	NS
Statistics is worthless to me since it is empirical and my area of specialization is philosophical.	3.29	1.32	3.51	1.28	NS
Computation Self-Concept Subscale					
I can't even understand 7 th and 8 th grade mathematics, how can I possibly do statistics?	3.66	1.52	3.58	1.50	NS
I could enjoy statistics if it weren't so mathematical.	3.25	1.20	3.33	1.29	NS
Since I have never enjoyed mathematics, I don't see how I can enjoy statistics.	3.35	1.31	3.29	1.36	NS
I don't have enough brains to get through statistics.	3.52	1.50	3.63	1.44	NS
Statistics isn't really bad. It's just too mathematical.	3.04	1.21	3.27	1.20	NS
I'm too slow in my thinking to get through statistics.	3.31	1.43	3.57	1.36	NS
I haven't had mathematics in a long time. I know I'll have problems getting through statistics.	2.34	1.20	2.86	1.40	4.98*

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Test and Class Anxiety Subscale					
Walking into the classroom to take a statistics test.	2.70	1.24	3.75	1.25	22.94**
Doing the final examination in a statistics course.	3.23	1.18	4.21	1.12	23.78**
Studying for an examination in a statistics course.	2.82	1.12	3.48	1.24	9.48**
Doing the homework for a statistics course.	2.36	1.14	2.53	1.30	NS
Waking up in the morning on the day of a statistics test.	2.34	1.14	3.24	1.38	15.40**
Enrolling in a statistics course.	2.02	1.17	2.45	1.53	NS
Going over an examination in statistics after it has been graded.	2.29	1.23	2.61	1.54	NS
Finding that another student in class got a different answer than you did to a statistical problem.	2.61	1.15	3.13	1.35	5.12*

* $p < .05$ ** $p < .01$

Gender, Statistics Classes and Statistics Anxiety

An examination of Table 4 indicates that no significant differences were obtained in statistics anxiety between students who had not taken a statistics class versus those who had taken a statistics class. Females who had completed one or more statistics classes tended to have significantly higher Test and Class Anxiety than males.

Table 4. Means (Standard Deviations) for Gender and Statistics Classes Taken for Three Subscales of the STARS

	STARS Subscales		
Statistics Class Taken?	Worth of Statistics	Computation Self-Concept	Test and Class Anxiety
No Statistics Classes			
Males	51.72 (15.20)	21.56 (6.74)	21.56 (7.10)
Females	51.97 (16.11)	23.27 (6.49)	25.21 (9.75)
One or More Statistics Classes			
Males	55.27 (11.45)	23.69 (6.87)	18.86 (6.14)
Females	55.63 (15.51)	23.91 (5.97)	25.66 (7.66)

Statistics Anxiety and Course Grades (GPA) by Gender

For males, no significant correlations were obtained between the three subscales of the STARS and course grades. For females, significant correlations were obtained for only Worth of Statistics and course grades ($r = .230$, $p < .05$) and Computation Self-Concept and course grades ($r = .226$, $p < .05$).

DISCUSSION

This study investigated gender differences in statistics anxiety with undergraduate college students. Three significant findings emerged from the study:

- There were no significant differences between males and females for Worth of Statistics subscale and Computation Self-Concept subscale; however, females had a more negative attitude for the Test and Anxiety subscale than males.
- There were no significant differences in statistics anxiety between students who had not taken a statistics class versus those who had taken a statistics class.
- For males, no significant correlations were obtained between statistics anxiety and course grades. For females, significant correlations were obtained between Worth of Statistics, Computation Self-Concept and course grades.

The lack of gender differences in the Worth of Statistics and Computation Self-Concept subscales is intriguing. In previous research, Hamid & Sulaiman (2014) found that psychology majors and minors enrolled in a statistics class tended to have the highest level of anxiety on the STARS for Fear of Statistics Teachers and the lowest level of anxiety for Worth of Statistics. They state that “this could be due to the perceived importance of statistics which is a required course for them” (p. 63). Lui, Onwuegbuzie, & Meng (2011) found that Chinese students in their study reported the lowest anxiety on the Test and Class anxiety dimension, and high scores on the Worth of Statistics dimension. They attribute the results to the Chinese students’ strong mathematical background and conclude that the high Worth of Statistics score obtained by the students “...might be related to the use of statistics in the real world in China...” (p. 40). Firmin & Proemmel (2008) state that “...undergraduate students tend not to see the day-to-day relevance of statistics to life, but it is relevant” (p. 19).

The importance of the Worth of Statistics (which includes positive and favorable attitudes) is exemplified in the response to the open-ended question by a male student who states:

“When I first entered college, I did not understand what statistics truly meant. After talking to many professors, I knew that statistics was going to be my friend in my future. I was given the opportunity to understand statistics, which I knew would be beneficial for my research in the future. Statistics is not scary to me, it is necessary.”

Gender differences were obtained for the Test and Class Anxiety subscale, with females experiencing greater statistics anxiety than males. Along those lines, Mills (2004) found that males indicated feeling more confident than females that they could master statistics, were not afraid of statistics, and that they could learn statistics. Previous research by DeCesare (2007) and Vahedi, Farrokhi & Bevrani (2011) found that females had more statistics anxiety than males.

An examination of the items on the Test and Class Anxiety subscale indicates that they measure anxiety involved when taking a statistics class or test (e.g., studying for an examination in a statistics class, doing a final examination in a statistics class). In statistics classes, college professors often encounter fear and negative responses from their students on this dimension

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which include statements like “I am so nervous in this class”, “I feel so stupid in the class”, “My friend had a really tough time in the class”, and “This class is going to be really difficult”. Responses to the open-ended question from the students below indicate similar negative and unfavorable attitudes which encompass this subscale.

“When I think about taking a stats class I am intimidated and feel like I will be overwhelmed with the content.” (Male student)

“When I hear the term, "statistics", I become physically tense; stiffening up because of the anxiety I feel. Statistics is the "big, scary monster" course every student must pass in order to earn their degree. I have heard more negative feedback regarding statistics than positive.” (Female student)

“I have not yet taken Statistics, but it literally makes me short of breath and I can feel an overwhelming sense of anxiety.” (Female student)

“When I was enrolled in statistics I was very nervous because of how hard it was for my friends.” (Female student)

“When I hear the term "statistics" I feel instantly anxious and really nervous. I feel very stressed out. Whenever I hear anyone talking about a stats class it is almost always negative.” (Female student)

“Even thinking about statistics made me feel stressed and incredibly anxious. Once I began class, however, I began to gain a bit of confidence and to realize that with hard work, passing was possible.” (Female student)

An examination of the responses above indicates that students experienced greater anxiety, pressure, nervousness, and stress about entering a classroom and taking/completing a statistics class. Female students also questioned their abilities/performance in a statistics class, and in general exhibited a more negative and unfavorable attitude towards statistics. It can be speculated that students who have negative attitudes (and unfavorable attitudes) also experience anxiety and low efficacy towards statistics. Perepiczka, Chandler, & Becerra (2011) indicate that “decreasing anxiety among graduate students is vital to developing high levels of self-efficacy towards statistics” (p. 105). Thus, it is recommended that statistics instructors monitor the levels of anxiety and apprehension experienced by their students and devise instructional strategies to deal with and/or reduce that anxiety experienced in their statistics class (Gal & Ginsburg, 1994; Zhang et al, 2012).

No differences were obtained in statistics anxiety between students who had not taken a prior statistics class and those who had completed a prior statistics class. Zhang et al., (2012) found that medical students with higher levels of research experience and statistical education tended to have more positive attitudes. Thus, it is recommended that students be provided research experience in their classes.

For males, no significant correlations were obtained between statistics anxiety and course grades. For females, significant positive correlations were obtained between course grades and Worth of Statistics and Computational Self-Concept. Wilson (1997) found no significant relationship between anxiety and expected grade. Onwuegbuzie (1995) found an inverse relationship between anxiety and performance ($r = -.62$, $p < .05$). Perney & Ravid (1990) also found "...course grades were not related to attitudes towards statistics, math self-concept, or attitudes towards test" (p. 11). In contrast, Cherney & Cooney (2005) found positive correlations between course grades and statistics perceptions ($r = .28$, $p < .001$). DeCesare (2007) who found a significant relationship between anxiety and course grade, indicates using various techniques for dealing with statistics anxiety like research projects that use real life data, group activities and projects, and daily or weekly homework assignments to mention a few. Students across the curriculum should be encouraged to see how their statistics class will be useful, relevant and valuable for them in the future and encouraged to expend more energy into the classes (Wigfield & Eccles, 1992).

A question of interest is whether anxiety experienced in a statistics class can be decreased by using diverse resources and instructional techniques? Zhang et al., (2012) state

Improving students' attitudes toward statistics may have a direct positive effect on learning statistics. Accordingly, an important issue for teachers is how to improve students' attitudes toward statistics, especially, how to reduce the fear and anxiety in learning statistics (p. 7).

Techniques for Decreasing Statistics Anxiety

Quinn (2006) found that teaching methods that demonstrated various statistical techniques decreased statistical anxiety with social work students. Along those lines "...giving students the opportunity to discuss the statistics tests through their journal writing ups, group presentations and SPSS discussions allowed to immerse themselves further into understanding the statistical tests, thus potentially increasing their comfort with the material and further reducing anxiety" (p. 170). Schau (2003) recommends suggestions that may help students in a statistics class. Some of these include: encouraging students who have debilitating anxiety or a lack of confidence to seek assistance, bringing a positive attitude to the course, stressing that a statistics course is not a math course, teaching that statistics is valuable, recognizing student's positive and negative attitudes, using humor to teach statistics, assessing student attitudes, and holding classroom discussions about attitudes.

D'Andrea and Waters (2002) found that the use short fictional stories to teach statistics reduced student's statistical anxiety, but it did not change their attitude towards statistics. Firmin & Proemmel (2008) discuss strategies that faculty can use for reducing students' statistics anxiety in their classes. Some of these include: spending class time helping students see connections between learning statistics and their professional futures, making statistics more interesting, using technology to enhance student experiences, using a conceptual rather than computational approach, using classroom exercises and demonstrations, journaling, and holding study sessions and tutorials to reduce student statistics anxiety. Future research should examine if diverse

pedagogical techniques for learning statistics could lower anxiety, especially with female students.

While this study would contribute significantly to the literature, we suggest that further research should examine questions like:

- (a) What is the relationship between students perception of self-efficacy and statistics anxiety?
- (b) Would students who have a more extensive mathematics background have lower statistics anxiety and more positive attitudes towards statistics?
- (c) How can educators work with students who have lower levels of confidence and high levels of statistics anxiety, so that the course is rigorous, useful, interesting and a valuable experience? (DeCesare, 2007).

CONCLUSION

Caution should be used in interpreting the results and the study should be conducted with a larger population of undergraduate college students. However, the results of this study will assist educators and researchers in identifying variables that may assist students be successful in their statistics class.

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A Qualitative Study of Attitudes, Motivation and Perception of Blood Donors towards Blood Donation in a Tertiary Care Hospital

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ABSTRACT:

BACKGROUND: There are various barriers to donating blood that influence the behavior of people towards blood donation such as cultural beliefs in some ethnic groups, socio-economic factors, their knowledge or lack of knowledge with regards to blood donation and other issues

AIM & OBJECTIVE: To establish motivational and socio-demographic factors for the development of a long-term commitment as a blood donor.

METHODOLOGY: Questionnaire-based study collected from 310 participants containing 22 items, including socio-demographic information, donors' evaluation of blood bank service and 23 statements on motivation. Data on motivation was analyzed using factor analysis.

RESULTS: Representation of males (85.4%) for donation was much higher compared to females (14.6%). Unemployed individuals were found to be under-represented. The single, most important, recruitment channel was the influence of active blood donors.

CONCLUSION: Most donors were recruited by other donors. Their continued involvement as blood donors was primarily linked to altruistic and empathic reasons.

Keywords: *Motivation, Donor, Altruistic*

There are various barriers to donating blood that influence the behavior of people towards blood donation such as cultural beliefs in some ethnic groups, socio-economic factors, their knowledge or lack of knowledge with regards to blood donation and other issues. [1, 2]

Donation of blood has always been considered as a humanitarian act and a positive behavioral phenomenon. By and large blood donors can be categorized broadly as -Voluntary Blood Donors, Replacement Blood Donors, and Professional Blood Donors. These categories are based on the behavioral patterns of the donors. [3]

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Against 8.5 million units/year requirement, the availability is only 4.4 million units/year of which only about 52% is through voluntary donations. It observed that all over the world including developing countries like India blood donors belong to a minority community. [4]

“More blood, more life,” this was the theme for World Blood Donor Day 2011 on the 14 of June to emphasize the critical need for more people all over the world to become lifesavers by donating blood regularly. Based on reports from 173 countries to WHO, around 93 million blood donors are donating annually. [5]

Increase in the level of awareness and positive attitude towards blood donation is the highest priority of all blood transfusion centers. The initial step for achieving this goal is to perform comprehensive studies measuring the current situation of awareness, knowledge, beliefs, and both positive and negative attitudes of the population towards blood donation.[6]

AIM: To explore the motivation and satisfaction towards blood donation among the blood donors in a tertiary care hospital.

OBJECTIVES:

- a) To measure the level of satisfaction in blood donation bank
- b) To find out positive and negative attitudes towards blood donation
- c) To identify the obstacles and difficulties facing the individuals
- d) To suggest some motivational factors that can improve the donation process in the future.

METHODOLOGY:

- a) Subjects from the blood donor survey

Questionnaire-based samples were collected from 310 participants. Study periods lasted for 4 weeks1 month (Jan 2015) recruited from the Blood Bank of a tertiary care hospital. Blood bank staff distributed a four-page self-administered questionnaire to be filled in during donation and to be returned anonymously. Almost all donors returned the questionnaire, giving a response rate of about 100 percent.

The four-page questionnaire contained 22 items, including socio-demographic information (gender, age, social status, education, annual income, etc.), donation history, recruitment method, the donors' evaluation of the blood bank service and 23 statements on motives for donating. The questions on motivation targeted donors with previous donation experience, and first-time donors were therefore excluded from the motivational analysis. The statements on motives were primarily based on the volunteer functions inventory (VFI), elaborated by Misjeet.al. [7]. The VFI was designed with the dual purpose of providing researchers with a useful measurement of volunteerism and helping the administrators of voluntary organizations

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to manage human resources. Only four VFI factors of motivation ('value', 'social', 'esteem' and 'understanding') were included in the questionnaire.

(1) 'Value' motives refer to altruistic and empathic reasons for volunteering (e.g. helping others, compassion, I cause).

(2) 'Social' reasons reflect the normative influence of friends, family, or a social group that motivates people to volunteer.

(3) 'Esteem' represents reasons for volunteering in order to feel better about oneself {e.g. feel better about myself, feel important) by helping others.

(4) 'Understanding' refers to positive experiences associated with volunteering {e.g. 'explore own strengths', 'learn from experience') [7]

a) Statistical Analysis

Factor analysis was performed for the data collected. Factors were extracted using a common factor (principal axis factoring) solution, because this factor model is recommended for the identification of latent factors. The number of factors to be extracted was decided using the latent root (eigen value) criterion on the unrotated factor matrix.

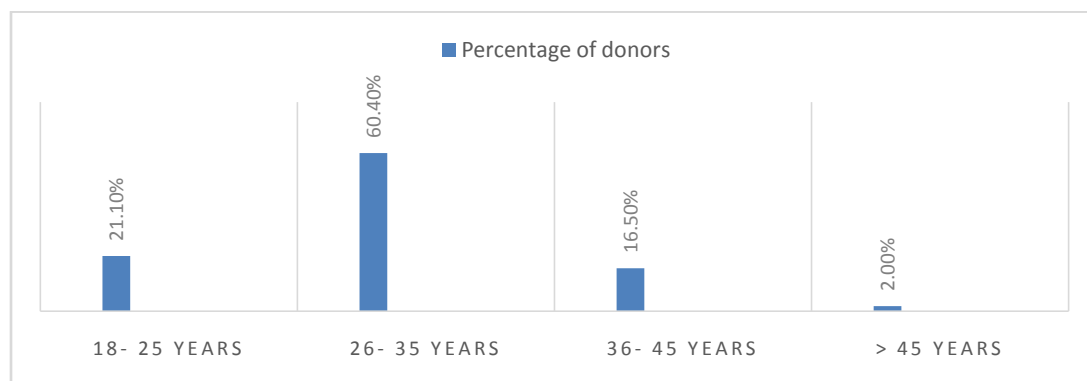
Only factors with latent roots higher than 1 were included in the analysis. A rotation of the factor matrix was performed in order to achieve a simple and meaningful factor pattern. An oblique rotational method (i.e. permitting factors to be correlated with each other) was selected because this method represents the clustering of variables more accurately than the alternative orthogonal method (i.e. each factor is computed to be independent of all other factors). The statistical analyses were conducted using SPSS software.

RESULTS:

a) Socio demographic

Men outnumbered women among the donors (85.4% vs. 14.6%). The age distribution among donors (26-35 years) was found with maximum percentage of blood donation. The youngest (18-25 years) and oldest (> 45 years) age groups were found to be under-represented among blood donors shown in Graph 1 below.

GRAPH 1: AGE DISTRIBUTION AMONG DONOR



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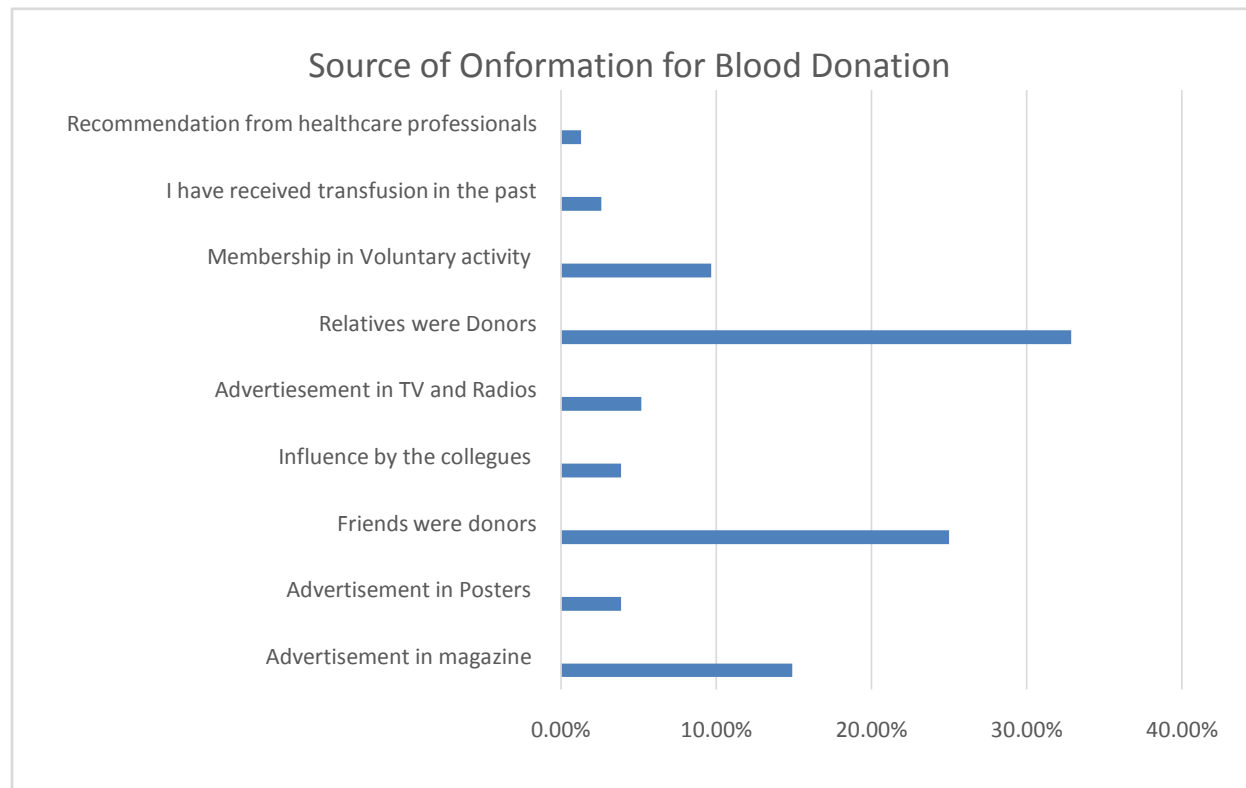
The proportion of married persons among blood donors (64%). The proportion of unemployed individuals was considerably lower among blood donors (11%) than those they were employed (72.7%). The proportion of people working in health and social services was lower among blood donors (2.6%).

b) Recruitment

The single most important recruitment channel was the influence of relatives who were once blood donors. In total 32.9% of all donors reported that they had been influenced by relatives (graph 2). 25% of the donors were recruited by friends, but only 1.3% by a spouse or partner. A total of 3.9% of all donors reported to have been recruited by acquaintances and colleagues.

The second main recruitment channel was media advertising. In total 22.9% of donors indicated that they had been recruited via advertisements in newspapers, magazines, leaflets, posters. TV or radio Other types of recruitment represented only a small percentage of the reported influences to volunteer for blood donation. We noted that only 1.3% started donating on the recommendation of healthcare professionals.

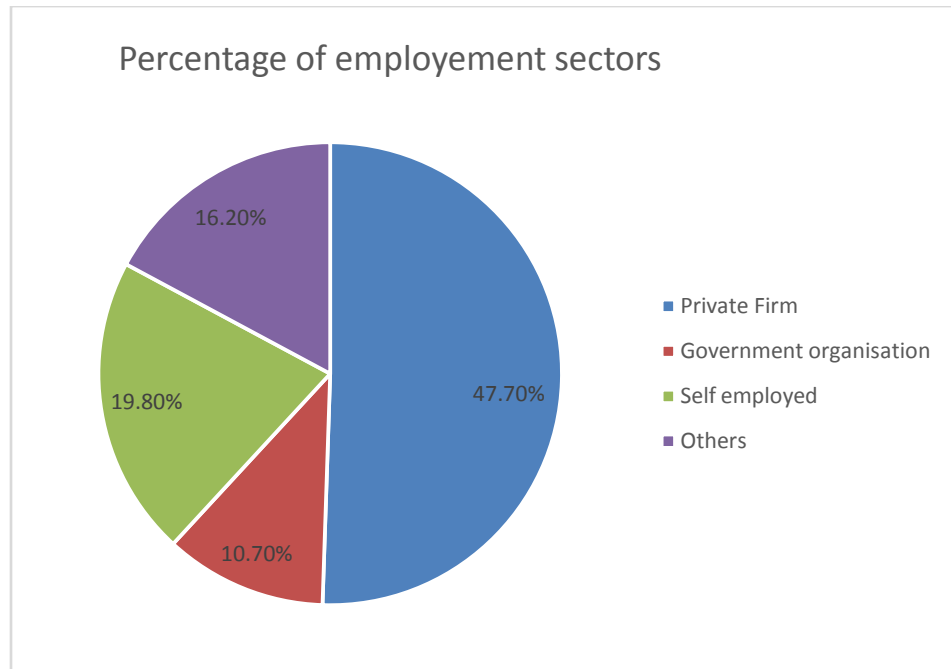
GRAPH 2: SOURCE OF CHANNEL FOR RECRUITMENT OF DONORS



c) Employment

The large percentage of employed donors belonged to a private firm (47.7%) in which 26.6 % were associated with Technology, telecom and media (Figure 1)

FIGURE1: PERCENTAGE OF EMPLOYEMENT AMONG THE DONORS



d) Total number of previous donations

43.8% donors said that they donate once a year while 9.7% of the donors had donated more than 5 times a year.

e) Recruitment channel, and number of donations

Long-term donors were defined as donors with a history of more than 10 donations. It was found that 9.4% of donors have donated more than 10 times. Media-recruited donors (newspaper, TV/radio, poster, leaflet) were found among recently recruited donors among the long-term donors.

f) Donors evaluation of the Blood Bank service and facilities

Overall, 89.2% of the Blood bank blood donors reported that they were satisfied (fully or partly agreed to a positive statement) with the professionalism of the collection staff. However, 9.8 % found donation fully or somewhat unpleasant. 86.2% of all donors gave a positive evaluation of blood bank facilities (table 1). Little criticism was made about facilities (i.e. longer waiting time for donation, although 38% indicated that the blood bank should have longer opening hours). Only 8.1 % of all donors wanted increased material rewards for donating blood.

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TABLE 1: PERCENTAGE OF MOTIVATIONAL STATEMENT OF THE QUESTIONNAIRE

	Motivational statement questionnaire	Fully disagree %	Partly disagree %	Neither agree nor disagree %	Partly agree %	Fully agree %
A.	Blood donation is a cause that is important to me	4.2	2.6	4.2	9.1	79.9
B.	B. Donating blood makes me feel important	2.9	6.5	00	9.1	81.5
C.	I get a good feeling whenever I see the blood bank logo, or an advertisement for blood donation	2.6	5.5	6.8	24.7	60.4
D.	I seldom think about blood donation, it is a habit	5.2	3.9	20.1	26.6	44.2
E.	Donating blood makes me feel better about myself	2.6	7.1	00	12	78.2
F.	I think blood donation benefits my own health	6.5	2.6	9.7	25	56.2
G.	For me blood donation is primarily a moral duty	2.6	10.1	00	17.2	70.1
H.	I donate because I feel great compassion towards the receivers of blood products	20.1	5.5	00	19.5	54.9
I.	I donate blood because it is important to help other people.	2.3	6.2	00	6.5	8.6
J.	By donating blood I can explore my own strengths	6.5	1.3	17.9	18.5	55.8
K.	Donating blood makes me feel needed	4.2	1.6	14.9	11.7	67.5
L.	If I don't contribute no one else will	10.4	2.9	18.8	11.7	56.2
M.	My colleagues, and other people I know, place high value on volunteering as blood donor	5.8	2.6	24.7	15.6	51
N.	An important reason for donation is that I get a health check for free	20.1	5.2	00	22.1	35.7

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Motives for donating blood

Twelve of the 14 motivation-related items in the questionnaire were adapted directly from the VFI. The statements A and G correspond to the 'value factor' of the VFI; B, K and E to the 'esteem factor'; M and L to the 'social factor'; J and I to the 'understanding factor'. In addition Five items of our own design were included (statements C, D, E, F, I). These addressed a broad range of reasons for donating blood that were not covered by the VFI.

a) Factor 1

The first factor that emerged was produced by the correlation between Variables J, K, F. Variables J correspond to the VFI-instrument's 'understanding' factor. Variables K correspond to the 'esteem' factor of the VFI and variables F and N address perceived health benefits from donation ('regular health control', and 'donating improves my own health'). Factor 1 accounted for a large proportion (32%) of the total variance and hence labelled as 'understanding' factor.

b) Factor 2

The second factor was composed of the responses to statements I, H and A, which cite altruistic and empathic reasons for giving blood. These statements Correspond to the VFI 'value' factor.

c) Factor 3

The third variable was formed by correlation between variables B and E which address increased self-esteem associated with giving blood (donating blood makes me feel better about myself). These variables correspond to the VFI 'esteem' factor.

d) Factor 4

The fourth factor was composed of responses to statements M and C. The first variable emphasizes the importance of support from other people as reasons for donation, and corresponds to the VFI 'social' factor. Variable C addresses positive feelings when seeing the blood bank logo or advertisements for blood donation.

DISCUSSION:

Unemployed individuals were found to be under-represented among blood donors. This may reflect reduced health status among the unemployed, which would probably exclude from donation. Higher (40.6%) of donor had income level above 50,000/- annually. Surprisingly, the study also showed under – representation healthcare professionals who are expected to be more aware of the need for blood transfusion than others.

Generally, blood donor socio-demographic characteristics showed some differences. Representation of males (85.4%) for donation was much higher than in the females. The small under-representation of women may be explained by screening of low-weight persons (there is a 45 kg weight limit for donation). The under-representation of women among long-time donors may partly be explained by the cessation of blood donation caused by pregnancy. The under representation of the youngest age group (18-25 years) among blood donors should be noted.

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However, About 72.4% of the donors had donated more than 4 times is shown in the study. This indicates that the commitment to donate blood is high among donors.

High number of donors was found to be recruited by mass media (TV/Radios/Advertisements). The importance of social networks as a recruitment channel for blood donation is noteworthy. The decision to begin and to continue blood donation was likely to be influenced more by peripheral persons (co-workers, neighbors) than close ones (spouse, or close friends). Therefore, active blood donors are probably the ones best suited to recruit and to motivate other people to become committed donors.

Donors who attended some college or higher education surveyed in this study were less satisfied with the overall donation process, noting less satisfaction during the interview and long waiting times. Several reasons may account for this lower satisfaction finding. Donors with more education may have a different perception of the value of their time or may be accustomed to higher quality service. This supports the need to hire, train, and retain qualified employees who provide excellent customer service while maintaining quality. However the skills of the staffs at the blood bank have been rated higher by the donors in the blood bank which is similar to study done by Mijse et al. [7]

An important aim of this study was to investigate the motivational profiles of the donors and the study showed that most of the donors were motivated by values (altruistic and empathic), social and some slightly self - regarding reasons (esteem, and understanding).

CONCLUSION:

In conclusion, we found that most donors were recruited by other donors. Increased self-esteem from being a blood donor was a more important motivation to donors with a short donation record than to more experience ones. Their continued involvement as blood donors was primarily linked to altruistic and empathic reasons. However, donors were also found to be motivated by moral obligation and some modestly self-regarding motives.

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Levels of Processing

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ABSTRACT:

The aim of this experiment was to investigate the impact of levels of processing (Independent Variable) on our memory (Dependent Variable). We hypothesized to find that a deeper level of processing lead to a better memory and in turn, greater recall. The experiment controlled variables such as environmental conditions, age of the target population and educational background of the participants. The experiment uses the Independent Measures design and the participants are a convenience sample of teenagers. We reduced Practice Effect and Fatigue Effect by using the Single-Blind Technique. The results proved the hypothesis: Semantic encoding lead to greater retention and a deeper trace of memory whereas Structural encoding lead to a shallow processing of memory. These results are replicated in Craik and Lockhart's (1972), Levels of Processing model. The researches done by Hyde and Jenkins (1973) and Craik and Tulving (1975) also prove the same results: deeper levels of processing lead to better recall. The Mann-Whitney U test also made a clear distinction in the number of words recalled due to deep and shallow processing. The study also raised some limitations such as generalizations, rehearsal, ecological validity and others. In totality, the experiment effectively manipulated variables and reproduced accurate results.

Keywords: *Processing, memory*

Research Question: To what extent do levels of processing influence memory of words?

Learning occurs through many different processes. The Levels of Processing are used to explain why we have a deeper trace of some things and a shallow trace of the others.

The research by **Craik and Lockhart** (1972) on levels of processing serves as a backbone for cognitive psychology. In contradiction to the Multi-Store Model by **Atkinson and Shiffrin** (1968) that divides memory into different stores (STM and LTM), the levels of processing model by Craik and Lockhart suggests that memory occurs through different processes.

Shallow Processing is divided into Structural (visually appealing words) and Phonological (sound words) encoding whereas, Deep Processing is based on Semantic (meaning of words) encoding. They proved through their research that “trace persistence is a positive function of the depth to which stimulus has been analyzed” which means, *Elaborative Rehearsal* (analyzing the words) lasts longer than *Distinctiveness* (distinguishing between words).

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Levels of Processing

Another research by **Craik and Tulving** (1975) is similar and furthermore validates the former research. They conducted an experiment where the participants were divided into 3 groups. Each participant was given a list of 60 words through one of the three tasks, which tested the three levels of processing. The memory recognition test concluded that the words semantically processed had a greater recall than the rest.

Hyde and Jenkins (1973) also carried out an experiment using the *incidental learning* (informal learning) technique. They divided their participants into different groups and conducted one of five tasks on each. After the surprise recall test, they concluded that those tasks, which involved semantic processing, had a better recall and in turn deeper processing.

Elias and Perfetti (1973) performed a study using the same technique. It involved a rhyming task for a list of words along with finding synonyms for the same. Participants in the synonym task were able to recall more words than the rest, drawing the same conclusion as above.

Hence, It was chosen to investigate the relationship between levels of processing and the recall of words by conducting two asks: One in which the first group of participants need to identify the word color and the other in which the second group needs to make sentences with the given words.

HYPOTHESES

Null Hypothesis: There will be no influence of the levels of processing on memorizing words.

Non-directional Hypothesis: There will be a significant difference in the recall of words semantically processed to those structurally processed.

Directional Hypothesis: The number of words semantically processed will leave a deeper trace than those structurally processed.

METHOD

Design

The participants were given a Consent Form and were not forced to be a part of the investigation. They were given clear instructions at the beginning of the task and debriefed at the end.

Independent Variable:

Deep and Shallow Levels of Processing

Dependent Variable:

Number of words recalled

Control Variables:

Environmental Conditions

Age of the student

Educational level of the student

Number of words

Levels of Processing

Demand Characteristics was reduced by using the Single Blind technique as there was a conduction of a surprise recall test at the end of the task before which the participants were not allowed to interact with each other. It was also mentioned in the consent form that their identity will remain hidden. Hence, this reduced the Fatigue Effect and Practice Effect.

Independent Measures was used in our design as each participant was part of either group and were allowed to perform either one of the tasks involving deep or shallow levels of processing. Therefore, this increased External Validity.

The Mann-Whitney U Test was conducted as it is a non-parametric test and the sample participating in the research does not exceed thirty, hence it proved as a suitable calculation test representing statistical data for our test.

Participants

Non-Probability Sampling was used under which Accidental Sampling or Convenience Sampling was used keeping the age group constant. It was also the most convenient for an experiment to be carried out in a school setting.

The experiment was conducted on 20 participants in total, and they were divided into two groups of 10 participants. In consideration of gender, the participants were randomly mixed and each group consisted of an uneven number of males and females.

The target population included 16-year-old children having a similar educational level and a part of International Board Year-1. As a control, the participants in Group 1 (Deep LOP) completed the task together at the same time and participants in Group 2 (Shallow LOP) did the same. This reduced the chances of interaction between participants.

Materials

- Pen
- Stopwatch
- Appendix A- Consent Form
- Appendix B- Parents Consent Form
- Appendix C- Standardized Instructions
- Appendix D- Word lists and attached Task sheets
- Appendix F- Debriefing Letter
- Blank sheets of paper

A classroom setting was required to conduct the experiment.

Procedure

The procedure was identical for both groups, Group 1 (Deep LOP) went first and then followed by Group 2 (Shallow LOP)

Levels of Processing

The participants were not allowed to interact at any point during this experiment.

- Each group was taken to a comfortable classroom with sufficient chairs and tables for 10 participants.
- They were then handed the Consent Form (Appendix A) and Parent's Consent Form (Appendix B) for those above the age of 16.
- Thereafter, the Standardized Instructions (Appendix C) for each group respectively, was handed out. The participants were allowed to withdraw at this point. For those who did not clearly understand, the instructions were explained individually.
- They were then given the Word lists and Task sheets (Appendix D) but were not allowed to begin until told.

Group	Time Limit	Task
Group A (Deep LOP)	8 minutes	Make sentences with the given words.
Group B (Shallow LOP)	2.5 minutes	Identify the color of the letters of each word and write how many were blue, green and red in the given blanks.

- The time limit was maintained using a stopwatch and after the time was up, the participants were asked to keep their pens down while we began collecting the answer sheets. If a participant completed early, the rest of the time was used to revise and recheck their answers.
- Then after, we announced the surprise recall test and a blank sheet of paper was given out to each participant.
- They were given 1 minute to complete their recall test and the time was kept using a stopwatch.
- The answer sheets were collected after the completion of this task and they were asked to maintain silence until they left.
- The Debriefing letter (Appendix F) was then handed out. After it was read, we collected it and the participants of this group were asked to remain seated until we gathered the next group into another classroom.

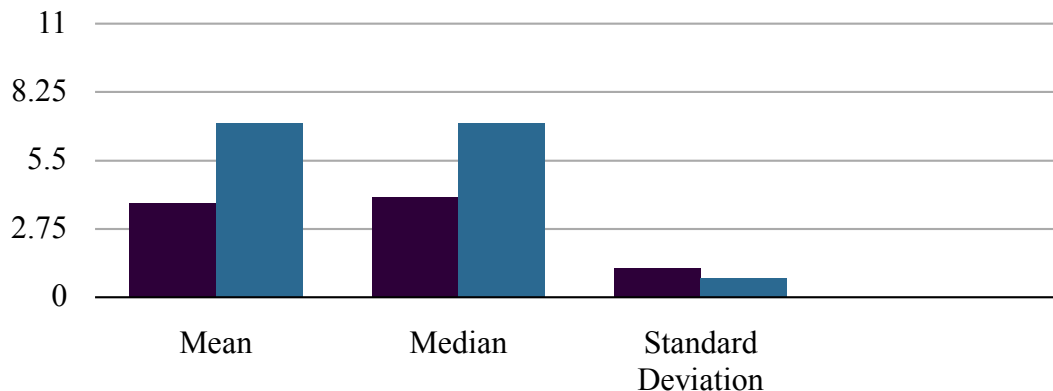
RESULTS

	Group A (Deep LOP)	Group B (Shallow LOP)
Mean	7	3.8
Median	7	4
Mode	7	3,4 (Bimodal)
Range	4	2
Standard Deviation	0.748	1.154

DISCUSSION

The aim of the experiment was; to what extent do levels of processing affect our memory of words. This was proved by the results of our investigation as the participants who made a meaningful sentence with the words had a deeper level of processing compared to those who merely skimmed through the words by identifying the color of the letters.

This study reproduced the same results as that of **Craik and Lockhart** (1972). The variables were the same for all the researches mentioned in the Introduction (Pg. 4). The experiment conducted by **Craik and Tulving** (1975) reinforced that the depth of processing increases as you go further from Structural processing to Phonological and the deepest at Semantic processing.



■ Shallow LOP ■ Deep LOP

Our research tested only two of these conditions, the Structural encoding was the task where the colors of the letters were required to be identified and this proved to be a Shallow level of processing. The second task required the participants to make sentences with the same word list,

Levels of Processing

with this the words were processed deeper in the brain. The cognitive function of memory is affected by many conditions such as these. The research by **Hyde and Jenkins** (1973) also proved the same hypothesis with 3 added tasks in comparison to our experiment. They also concluded that more words were recalled as a result of Semantic processing.

The statistical results also proved the same; the mean, median and mode for Group A was a greater number compared to Group B showing a greater number of words recalled due to deeper processing. According to Craik and Lockhart, 'memory is a by-product of perception' and if words in our brain are perceived deeper, our memory is stronger in the long term. The results also replicated that of Craig and Tulving's experiment as they proved the same with the help of their analysis. Hyde and Jenkins conducted a wider, in depth analysis reproducing that the recall is directly proportional to the depth of processing. We also incorporated incidental learning in our test; with the help of a surprise recall test and Convenience Sampling.

By using the same classroom setting in both the cases, we made sure that the participants are not only comfortable but also in an appropriate condition to answer the task. With this the environmental conditions were controlled. The age of our target population was the same, and all the children were from the same grade. This kept the age and educational background of the participants constant. The independent measures design ensured the elimination of the Practice Effect and Fatigue Effect. The Single-blind technique also ensured that Demand Characteristics were avoided.

Our participants were given a Consent form (Appendix A) before the investigation and were thanked and debriefed at the end (Appendix F). They were allowed to withdraw at any point during the experiment was being conducted. Their anonymity was protected even after we released the results, which they chose to view or obtain. The experimenters were also conscious not to disrupt the participants in any way, which would hinder their completion of the test and in turn the results.

A laboratory experiment like this one questioned ecological validity as the variables could have had an impact on the responses in participants. We also avoided taking the task sheet before the entire group completed the experiment and this may have resulted in rehearsal, affecting our analysis to an extent. The direct comparison of the results between the two groups might have also created some uncertainties as the participants were different and their cultural and social background could have impacted. As we have studied, cultural and social factors affect our memory and one tends to remember things they can relate to. Some words might have evoked this resulting in inaccuracies.

It can be very difficult to make generalizations by using Opportunity Sampling, as it may not have met the exact requirements for the target population. Random Sampling could have been a better options but it is more widely distributed and therefore time consuming.

Levels of Processing

There was a conflict between concrete and abstract words affecting the recall of a participant. As suggested by **Walker, I., & Hulme, C.** (1999), concrete words (objects/events that avail to our senses) are recalled more than abstract words (an idea/concept). To avoid this, the word list could have included either one of those sets. Another study by **Weldon, M.S., & Bellinger, K.D.** (1997) concluded that words learnt collaboratively are leaving a deeper trace in the memory compared to individual processes in remembering. This contradicts our research as the task was given to one participant, separately. To avoid this, the test could have been carried out collectively, in order to compare the results.

The difficulty of words was maintained to a minimum but this cannot be judged, as a participant might have been familiar with some and not with the others. To avoid this, we could have consulted the word list to a control group and an English teacher.

In conclusion, this experiment effectively manipulated variables and obtained accurate results to prove the hypothesis. The deeper level of processing (Semantic encoding) leaves a deeper trace of memory, resulting in a better recall. These results support the Levels of Processing theory by Craik and Lockhart (1972).

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Levels of Processing

APPENDIX A

Consent Form

The participant is required to agree to the conditions mentioned below and thereby give his/her informed consent to participating in the research.

I have been briefed about the research and assured that I will not be harmed in any way. I have the right to withdraw from the experiment at any point of time and am under no obligation to participate. My anonymity will be protected. The research will be conducted so that I will not be debased in any way.

Please place a $\sqrt{}$ or \times in the following boxes:

I would like the results of my test to remain confidential

☐

I would like more information about the results later on

☐

Name (optional): _____

Date: _____

E-mail: _____

Age: _____

APPENDIX B

Parent's Consent Form

To the concerned parent,

I am a PhD student, from the Department of Psychology. M.S.University, Baroda. I have performed a harmless experiment concerning the levels of processing in your child and his/her classmates.

As your child is under the age of sixteen I would require your consent to use his/her results from the test in preparing our report for the psychology internal assessment. The participants have been asked to fill out a questionnaire regarding the shallow/deep levels of processing according to their previously known knowledge. You are permitted to ask any further questions regarding this experiment. Your child will remain anonymous and this experiment will not harm him/her in any way.

Thank You

Participants' name: _____

Signature of parent: _____

Date: _____

APPENDIX C

Standardized Instructions

Group A (Deep LOP)

We will be performing a short experiment, with your consent, on levels of processing.

The experiment has only one component and after reading the instructions below, a questionnaire will be handed to you which, needs to be filled in as follows:

You will be given a list of words. Beside each word, there is a blank space, where you will be required to form a sentence using each of the words.

e.g. Cat - My cat sleeps all day long.

You will be timed for this section. During this time you are not allowed to communicate with anybody. You are permitted to re-check your answers before submitting them. Please notify the researcher if you wish to withdraw from the research at any time.

After the test has been completed, i would appreciate your time to fill in our feedback form.

Thank you.

Group B (Shallow LOP)

A short experiment will be performed, with your consent, on levels of processing.

The experiment has only one component and after reading the instructions below, a questionnaire will be handed to you which, needs to be filled in as follows:

You will be given a list of words. Write the number of letters in each word under each of the colored columns. e.g. Psychology = Red- 5 Blue- 3 Green-2

You will be timed for this section. During this time you are not allowed to communicate with anybody. You are permitted to re-check your answers before submitting them. Please notify the researcher if you wish to withdraw from the research at any time.

After the test has been completed, the researcher will appreciate your time to fill in our feedback form.

Thank you.

Appendix D

Word List and Task Sheet

Group A (Deep LOP)

Amoeba- _____

Stall - _____

Believe - _____

Amount - _____

Peon - _____

Tongue - _____

Bully - _____

Whether - _____

Aggression- _____

Dictionary - _____

Google - _____

Levels of Processing

Tomorrow - _____

Catastrophe - _____

Mobile - _____

Baseball - _____

Group B

(Shallow LOP)

	Red	Blue	Green
Amoeba	_____	_____	_____
Stall	_____	_____	_____
Believe	_____	_____	_____
Amount	_____	_____	_____
Peon	_____	_____	_____
Tongue	_____	_____	_____
Bully	_____	_____	_____
Whether	_____	_____	_____
Aggression	_____	_____	_____
Dictionary	_____	_____	_____
Google	_____	_____	_____
Tomorrow	_____	_____	_____
Catastrophe	_____	_____	_____
Mobile	_____	_____	_____
Baseball	_____	_____	_____

Appendix E

Descriptive Statistics

Group A (Deep LOP)

Mean: Total number of words recalled/ Number of participants =
 $7+7+7+7+10+7+6+7+6+6/10 = 7$

Median: $7+7/2 = 7$

Mode: 7

Range: $10-6 = 4$

Standard Deviation:

Participants	X (Scores)	X ²
1	7	49
2	7	49
3	7	49
4	7	49
5	10	100
6	7	49
7	6	36
8	7	49
9	6	36
10	6	36
	Total = 70	Total = 502

Standard Deviation = 0.748

Descriptive Statistics

Group B (Shallow LOP)

Mean: Total number of words recalled/ Number of participants =
 $4+3+3+4+5+4+4+3+5+3 = 3.8$

Median: $4+4/2 = 4$

Mode: 3,4 (Bimodal)

Range: $5-3 = 2$

Levels of Processing

Standard Deviation:

Participants	X (Scores)	X ²
1	4	16
2	3	9
3	3	9
4	4	16
5	5	25
6	4	16
7	4	16
8	3	9
9	5	25
10	3	9
	Total: 38	Total: 150

Standard Deviation = 1.154

Appendix E

Inferential Statistics

Mann-Whitney U Test

$$U = n_1 n_2 + \frac{n_2(n_2+1)}{2} - \sum_{i=n_2+1}^{n_2} R_i$$

R_i = Rank of sample size

n_1 = Sample (1)

n_2 = Sample (2)

Levels of Processing

Group A (Deep LOP)	Points	Group B (Shallow LOP)	Points
7	100	4	0
7	100	3	0
7	100	3	0
7	100	4	0
10	100	5	0
7	100	4	0
6	100	4	0
7	100	3	0
6	100	5	0
6	100	3	0

Total = 100

Total = 0

Lower Value = U

Appendix F

Debriefing Letter

Thank you for participating in this research. The aim of the experiment was to investigate the difference between Shallow and Deep Levels of Processing. The researcher divided the sample in to two different groups. Group A was given a list of words in which they were required to identify the number of letters colored in the word. Group B was given a list of words with which they were required to form sentences. The list of words for both the groups was the same and both had to recall the maximum number of words they remembered.

Hypothesis was that Group A would recall more words than Group B because they had a deeper level of processing whereas the latter merely glanced through the words. All the results of the study will be made available to you once they are finalized. If interested in viewing the results, please contact me on my email id: “dipalsdpate19@gmail.com”

Thanking You,

Dipal Patel.

9428167639

ACKNOWLEDGEMENT

It has been an enriching experience on the way (especially, the last couple of days had seemed to have imperceptibly merge on one another), as much of an intellectual enterprise as one of soul stirring courses moments of hope and restlessness.

With this exercise nearing a meaningful end, I like to thank my source of inspiration, Prof. R. G. Kothari, Dean, Faculty of Education and Psychology, M. S. University. Baroda.

My sincere indebtedness to My parents, Mr. D.H Patel and Mrs. S.D Patel. They have been a constant source of support and helped me towards making my dreams come true. I feel truly blessed, with their unconditional affection and unfaltering belief in me....

And one very important person, without whom any of my research work would not have materialized, he has not only supported me throughout but also tolerated me whenever I used to get hyper...my best friend and husband...Mr. Bhavin Shah.

I also wish to thank my in laws, Mrs. Bhavna Shah and Mr. Nandkishore Shah for boosting my confidence and for being there whenever I needed them. I take this opportunity to express my love for Brinda and Disha, the two important girls of my life.

Before winding up, I thank all the students who participated in the study for their cooperation and patience. Without their contribution the research would not have been completed.

Concept Development and level of Social Maturity of Visually Handicapped Children in Integrated and Residential Settings

Dr. Poonam Pandey¹

ABSTRACT:

The present study aimed to investigate the level of social maturity and concept development of visually impaired children in residential and integrated educational settings. For this purpose 40 visually impaired children, 20 from residential educational setting and 20 from integrated educational setting were selected through purposive sampling technique from Uttarakhand, Uttara Pradesh, Haryana, Gujarat and Delhi. For measuring level of social maturity and concept development, Vineland Social Maturity Scale (Indian adaption by A.J. Malin) and M.N.G. Mani's concept development test were administered.

χ^2 test, mean and percentage techniques were used to analyze the obtained data. The result reveals that in residential school setting children are more socially mature in comparison to integrated educational setting. The cumulative average performance score from all the 200 concepts reveal that residential education is more effective in comparison to integrated education for visually impaired children.

Keywords: *concept development, visually impaired children, integrated & residential educational setting*

In common the developmental psychologists study physical, cognitive, emotional and social development especially of children. Human life is characterized by growth and change, we all begin existence as a single fertilized egg, and from that moment until the time we die we are continuously changing.

Some changes are rapid some are momentous and some are very slow that we do not notice them. Development of a human being is the study of these changes and of what causes them. The most influential student of child development was Jean Piaget (1896-1980) a Swiss Psychologist, Piaget formulated the most complete and detailed description of the process of cognitive development, that we now have.

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Concept Development and level of Social Maturity of Visually Handicapped Children in Integrated and Residential settings

His conclusion was based upon his observation of the behavior of children. He noticed that children of similar age tended to engage in similar behaviours and to make same kind of mistakes in problem solving. He concluded that these similarities were a result of a sequence of development that is followed by all normal children.

Piaget suggested that a child acquires knowledge of the environment by developing mental structure called concepts. Concepts are rules that describe properties of environmental events and their relation with other concepts. (1952)

Education for visually disabled in India is more than 100 years old. The first school for the blind was started by missionaries in 1886 in Amritsar. Since then education and rehabilitation programmes are growing in India, but the pace of growth is not adequate. Statistics of the recent times clearly revealed that the present coverage of visually disabled children under the umbrella of education is not more than 5% . There are around 300 special schools in the country which are catering to the educational need of nearly 30,000 blind children. And in 1050 integrated school only 10% children are visually impaired as revealed by the evaluation studies by Mani (1951) “Integrated Education for the Disabled”. The present coverage of visually impaired children in both integrated school and in special school is relatively low when they are compared with the magnitude of the problem. Various organisation and Government of India introduced a centrally sponsored scheme of Integrated Education for Disabled Children (IEDC) in 1977. This scheme of government is only 37years old for few thousand of children. This study will give valuable information about the efficacy of integration by concept development and level of social maturity of visually impaired children.

The title of the research paper is “Concept Development and level of social maturity of visually Handicapped children in Integrated and Residential setting”.

DESCRIPTION OF VARIABLES:

Integrated school is a unit where visually impaired children study along with sighted **children assisted by trained special teacher**.

Special School: Special schools are those exclusively meant for visually impaired children.

Concept Development: A child acquires knowledge of the environment by developing concepts, concepts are rules that describe properties of environmental events and their relations with other concepts.

Social maturity refers to the process by which society conveys behavioral expectations to the individual in a particular age society expects some behaviour from the individual.

Concept Development and level of Social Maturity of Visually Handicapped Children in Integrated and Residential settings

HYPOTHESES:

1. The two mode of education special and integrated education do not differ significantly in respect to conceptual understanding and concept development among students.
2. The two mode of education special and integrated education do not differ significantly in respect to social maturity of students.

METHODOLOGY:

Independent Variable

1. Residential Setting
2. Integrated Setting

Dependent Variable

1. Concept Development
2. Social Maturity

Controls :

1. Only visually Impaired group
2. Age group will be 6 to 11 years.
3. No other additional disability

Present Study is a pilot study nature to determin the effectiveness of the different mode of education for visually impaired children.

Sampling:

In the present study purposive sampling technique was used. Sample of the present study is 40 visually impaired children from Uttarpradesh Haryana, Gujrat, Delhi and Uttarakhand. Sample structure is 20 visually impaired children from residential setting and 20 V.I. from integrated setting.

Tools:

Vinland Social Maturity Scale (Indian adaptation by A.J. Malin) and M.N.G. Mani's concept development test, are used.

V.S.M. Scale - Indian adaptation by A.J. Malin in (1966) the total number of items performed by the childcare counted .

Mani's test of concept Development of Primary Grades Age group 6-8 years and 9 to 11 years. This is a battery of tests for assessing the concept of primary grades. A total of 200 concept under the broad components such as, body awareness , distance and time awareness, spatial etc.

Concept Development and level of Social Maturity of Visually Handicapped Children in Integrated and Residential settings

ANALYSIS OF RESULTS:

Data was collected by selected scales applied on 40 visually impaired children from different (I.S. & R.S) educational setting. The data were complied and tabulated with the help of suitable statistical techniques. χ^2 test was used. The following results are obtained.

There is no significant difference in respect of social age among visually impaired children in the two mode of education integrated and residential

TABLE-1

Social Age Mode of Education	Below 6 years	6 to 11 years	Above 11 years	Total
Integrated	35% 7 (4)	65% 13 (15)	0 (1)	20
Residential	5% 7 (4)	85% 17 (15)	10% 2 (1)	20
Total	8	30	2	40

Mean social age in integrated setting = 7.4 years.

Mean social age in Residential setting = 8.1 years.

$\chi^2 = 7.02$ d.f. 2 Significant at .05 level.

TABLE-2

There is no significant difference between the concept development of Visually impaired Children in respect to the two made of education Integrated and Residential.

Concept Development Mode of Education	B.A. (30)	OS (20)	T.A. (30)	S.A. (20)	S.O. (40)	M (M)	OE (40)	Total (200)
Integrated	20.4	8.65	8.9	9.15	24.65	7.25	16.5	95.50
Residential	21.5	12.1	12.5	11.55	20.95	9.05	16.5	103.60

Mean score of concept development in integrated setting is = 13.64

Mean score of concept development in residential setting is = 15

DISCUSSION

An observation of table No. 1 revealed that χ^2 is significant at .05 level thus the result prove that in residential setting the visually impaired children are more socially mature in comparison to integrated educational setting. The mean social age 8.1 years in residential education setting and mean social age is 7.4 years in integrated setting.

Results of table No. 2 revealed that skill orientation and orientation of environment of visually impaired children are somehow good in integrated setting. In other field of conceptual development the residential setting is more good according to the mean scores. The cumulative average performance score for all the 200 concepts reveals that residential education with a score of 103.60 proves that is more effective in comparison to integrated setting with a score of 95.50. The mean score of concept development in integrated setting is 13.64 and the mean score of concept development in residential setting is 15.

According to M.N.G. Mani integrated education mean providing equal educational opportunities and experiences to children with disabilities with the assistance of a trained specialist teacher in the least restrictive environment such as a regular school. But the results of present study revealed that concept development and social maturity of the V.I. children are better in residential setting then the integrated setting, it might be due to lack of training of the teachers and natural environment for the specific purposes in integrated setting.

According to all results the conclusion is that Residential setting is more effective in comparison to integrated educational setting.

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Impact of PTSD on Quality of Life and Subjective Well-Being of Peoples in Tsunami Affected Area at Pondicherry:

A Comparative Study

Neethu. P. S¹, Abdul Rafeeqe T. C²

ABSTRACT:

On December 26, 2004, a massive undersea earthquake off the west coast of Northern Sumatra in Indonesia with a Richter-scale magnitude of 9.0 caused a giant tsunami that devastated the shorelines of Indonesia, Sri Lanka, India, Thailand and several other countries. In India the tsunami severely affected the coastal regions of the eastern state of Tamil Nadu, the union territory of Pondicherry, and the western state of Kerala. The tsunami had a huge human, physical, economic and social impact. Natural disasters like this have a negative impact on individuals' mental health. Not only do disaster survivors have an increased risk of developing posttraumatic stress disorder (PTSD) (Norris FH, 2002) and other mental ailments (McFarlane AC, Papay P, 1992), but their quality of life may also be curtailed (Chou FH, 2004; Heo JH, 2008; Tsai KY et al, 2007). The purpose of study was to analyze the impact of PTSD on quality of life and subjective well-being of peoples in tsunami affected area at Pondicherry through a comparison between affected and unaffected population. Sample of the present study include 260 subjects, 130 tsunami victims (F=60 & M=70) and 130 unaffected people (F=60 & M=70) aged between 25-40 years, who has been identified through the Posttraumatic Disorder Check List PCL (Weathers et al, 1993) from Pondicherry, India. That who are having the history of psychiatry disorders and who had death or other traumas in family in last 1 year is excluded from the victims group. Subjective wellbeing inventory (Diener et al, 1985) and WHO Quality of Life-BREF (WHOQOL-BREF) were used to collecting data. The study found that there is significant difference between PTSD victims and unaffected people in quality of life and subjective well-being. PTSD had influenced in quality of life and subjective well-being of peoples of Pondicherry.

Keywords: *Posttraumatic Stress Disorder, Quality of Life and Subjective Well-Being*

Posttraumatic stress disorder (PTSD) is a psychiatric disorder that can occur in people who have experienced or witnessed life-threatening events such as natural disasters, serious accidents, terrorist incidents, war, or violent personal assaults like rape.

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Impact of PTSD on Quality of Life and Subjective Well-Being of Peoples in Tsunami Affected Area at Pondicherry: A Comparative Study

People who suffer from PTSD often relive the experience through flashbacks or nightmares, have difficulty sleeping, and feel detached or estranged. In some cases the symptoms of PTSD disappear with time, whereas in others they persist for many years. PTSD often occurs with—or may contribute to—other related disorders, such as depression, substance abuse, problems with memory, and other physical and mental health issues.

On December 26, 2004, a massive undersea earthquake off the west coast of Northern Sumatra in Indonesia with a Richter-scale magnitude of 9.0 caused a giant tsunami that devastated the shorelines of Indonesia, Sri Lanka, India, Thailand and several other countries. In India the tsunami severely affected the coastal regions of the eastern state of Tamil Nadu, the union territory of Pondicherry, and the western state of Kerala. The tsunami had a huge human, physical, economic and social impact. The emergency phase was followed by the reconstruction and rehabilitation phase, where livelihood assets had a relevant role, in terms of capabilities, material and social resources, and activities that are required for a means of living. Moreover, beyond the personal and communal experiences of the disaster itself, a new dimension shaped life after the tsunami: the large-scale influx of aid and aid actors. The effects of foreign aid impacted on and permeated not only all levels of state and society, but also the recovery process itself.

Victims of environmental disturbances were found to have trauma-related psychological disturbances (Lindemann, 1944). Natural disaster is a traumatic event that may cause posttraumatic stress disorder (PTSD). Natural disasters like this have a negative impact on individuals' mental health. Not only do disaster survivors have an increased risk of developing posttraumatic stress disorder (PTSD) (Norris FH, 2002) and other mental ailments (McFarlane AC, Papay P, 1992), but their quality of life may also be curtailed (Chou FH, 2004; Heo JH, 2008; Tsai KY et al, 2007). PTSD has been associated with lower QOL victims of natural disasters (Warshaw et al., 1993; Zatzick et al., 1997), refugees of war (Miller et al., 2002), and sexual assault survivors (Krakow et al., 2002; Zoellner et al., 2000). In addition, PTSD has been shown to be linked with poorer mental and physical health (Wolfe et al., 1994), increased violent behavior (Chemtob et al., 1994), marital, parental, and family adjustment problems (Jordan et al., 1992), poorer role functioning and occupational problems (Jordan et al., 1992; Zatzick et al., 1997a, 1997b), and less favorable performance in work and education (Stein et al., 1997). Patients who perceive trauma as a life threat (Holbrook et al., 2001) and those who experience multiple traumatic events (Johnsen et al., 2002) have been found to have a particularly poor QOL.

STATEMENT OF THE PROBLEM

The purpose of study was to analyze the impact of PTSD on quality of life and subjective well-being of peoples in tsunami affected area at Pondicherry through a comparison between affected and unaffected population.

METHODOLOGY

Sample

Sample of the present study include 260 subjects, 130 tsunami victims (F=60 & M=70) and 130 unaffected people (F=60 & M=70) aged between 25-40 years, from Pondicherry, India. That who are having the history of psychiatry disorders and who had death or other traumas in family in last 1 year is excluded from the victims group.

Tools

- i. **Subjective wellbeing inventory (Diener et al, 1985):** SWB was measured with five-item scale developed by Diener, Emmons, Larsen, and Griffin (1985). Sample items include “I am satisfied with my life” and “in most ways my life is close to my ideal”. Response categories for each item were on a 4-point Likert type scale ranging from strongly disagree (1) to strongly agree (4). A high score on item indicated high SWB. Cronbach’s alpha is 0.80.
- ii. **The Posttraumatic Disorder Check List:** The PCL (Weathers et al, 1993) is an easily administered self-report rating scale for assessing the 17 DSM-IV symptoms of PTSD. It has excellent test-retest reliability and internal consistency is very high.
- iii. **WHO Quality of Life-BREF (WHOQOL-BREF)** The World Health Organization Quality of Life (WHOQOL) project was initiated in 1991. The aim was to develop an international cross-culturally comparable quality of life assessment instrument. It assesses the individual's perceptions in the context of their culture and value systems, and their personal goals, standards and concerns. The WHOQOL instruments were developed collaboratively in a number of centres worldwide, and have been widely field-tested.

DATA COLLECTION

Prior to the administration of the questionnaire subjects were made aware of the importance of the study and all the questionnaire was translated in to their local language of Tamil. The investigator given a clear picture of each questions and wherever necessary investigator described the questions for the understandings of the subjects. Posttraumatic Disorder Check List PCL (Weathers et al, 1993) was administered to the peoples to identify the PTSD victims. Then the Subjective wellbeing inventory (Diener et al, 1985) and WHO Quality of Life-BREF (WHOQOL-BREF) were used to collecting data.

ANALYSIS OF DATA AND RESULTS

The data collected from the subjects were statically analyzed by the application of independent t- test. The level of significance was fixed at 0.05 level confidences.

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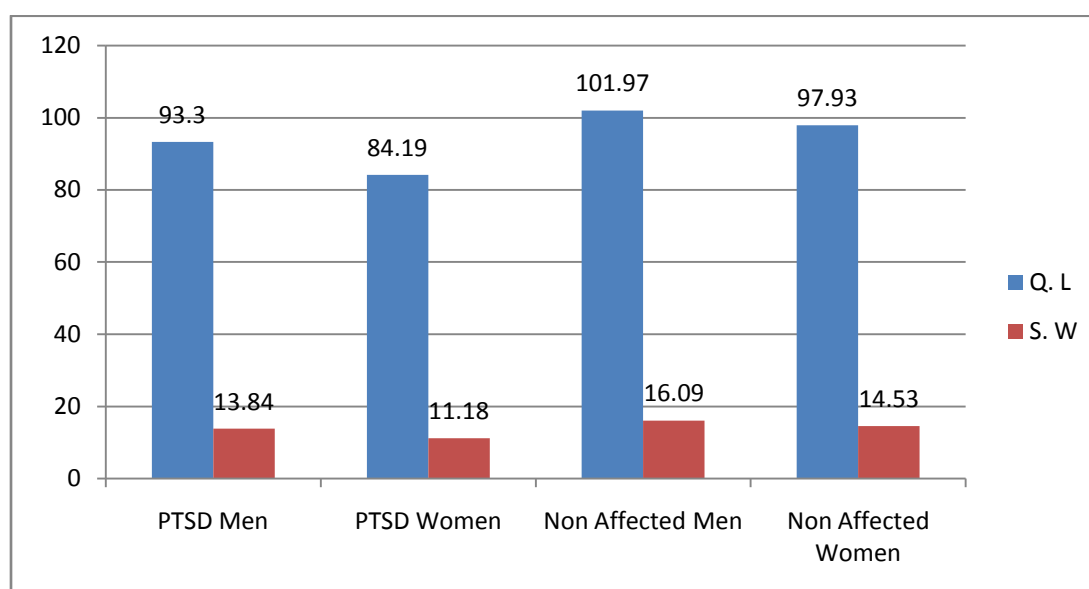
Table-I: Descriptive Statistics of the quality of life and subjective wellbeing of PTSD victims and unaffected peoples.

Group	Quality of Life			Subjective Wellbeing		
	N	Mean	S.D	N	Mean	S.D
PTSD Women	60	84.19	13.20	60	11.18	2.27
PTSD Men	70	93.30	12.12	70	13.84	2.25
Non Victim Women	60	97.93	18.86	60	14.53	2.49
Non Victims Men	70	101.97	20.33	70	16.09	2.30

From table I, it is clear that the descriptive scores of the quality of life of PTSD victims and unaffected peoples as follows: PTSD Men (93.30), PTSD Women (84.19), unaffected Men (101.97) and unaffected peoples Women (97.93) and the mean scores of the subjective wellbeing of PTSD victims and unaffected peoples are PTSD Men (13.84), PTSD Women (11.18), unaffected Men (16.09) and unaffected Women (14.53).

The Standard Deviations are PTSD Men (12.12), PTSD Women (13.20), unaffected Men (20.33) and unaffected s Women (18.86) for quality of life and of the subjective wellbeing PTSD victims and unaffected as follows: and PTSD Men (2.25), PTSD Women (2.27), unaffected Men (2.30) and unaffected Women (2.49) are for subjective wellbeing of PTSD victims and unaffected peoples respectively.

Figure-1: mean comparison of the quality of life and subjective wellbeing of PTSD victims and non victims.



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Table-II: Analysis of quality of life and subjective wellbeing between PTSD victims and non victims.

Variables	PTSD Victims			PTSD Non Victims			T-ratio
	N	Mean	SD	N	Mean	SD	
Quality of Life	130	89.24	13.38	130	100.11	19.69	5.205*
Subjective Wellbeing	130	12.62	2.62	130	15.37	2.50	8.672*

* Significant at the 0.05 level of confidence ($t_{0.05}(129) = 1.645$)

The table II indicates that, there was a significant difference between the PTSD victims and non victims quality of life and subjective wellbeing, since the calculated 't' value of 5.205 for quality of life and 8.672 for subjective wellbeing are higher than tabulated 't' value of 1.645 at 0.05 level of significance.

DISCUSSIONS

The study found that there is significant difference between PTSD victims and unaffected people in quality of life and subjective well-being. Natural disasters like Tsunami have a negative impact on individuals' mental health. Not only do disaster survivors have an increased risk of developing posttraumatic stress disorder (PTSD) (Norris FH, 2002) and other mental ailments (McFarlane AC, Papay P, 1992), but their quality of life may also be curtailed (Chou FH, 2004; Heo JH, 2008; Tsai KY et al, 2007). The overall impact PTSD on the quality of life individuals directly influenced their subjective wellbeing.

CONCLUSION

Quality of life and posttraumatic stress symptoms are highly related. However, there are major differences between the factors that are related to posttraumatic stress symptoms and quality of life after disaster experiences. Thus, studies should have a broader perspective than posttraumatic stress symptoms to understand mental health-related processes after traumatic experiences. PTSD had influenced in quality of life and subjective well-being of peoples of Pondicherry.

From the findings of this study it can concluded as PTSD had influenced in quality of life and subjective well-being of peoples of Pondicherry. PTSD victims are very low in their quality of life and subjective wellbeing as compared to unaffected peoples. PTSD victim women's quality of life and subjective wellbeing are very poor when compared to PTSD men victim.

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Understanding the increased vulnerability of women to PTSD and quality of life along with their dynamics will equip therapists to initiate appropriate interventions after a traumatic event like a natural disaster. Women in natural-calamity prone areas can also be prepared through training like stress inoculation methods to prevent the occurrence of PTSD. Rescue and rehabilitation workers can be trained to be aware of increased vulnerability of women especially the girl child, to traumatic stress so that they can take necessary precautions and provide more psychological care to them.

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Comparative Study of Emotional Maturity and Self Concept among Doctors and Managers

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ABSTRACT:

The present study evaluates the emotional maturity and self concept among Doctors and managers. The sample consisted of 100 professionals (50 Doctors and 50 Managers) from Jalgaon and Nashik cities of North Maharashtra. Self-concept rating scale, developed by Dr. Muktarani Rastogi and Emotional Maturity Scale by Singh and Bhargava Scales were used to collect the data. The data were analyzed by 't' test. The results discovered that the Doctors and Managers have no significantly difference on emotional maturity. It was also noticed that Doctors and Managers have no significantly difference on self concept.

Keywords: *Emotional Maturity, Doctors, Managers*

In the present circumstances, Non Professionals as well as professionals are facing complexities in their life. These complexities are generous to many emotional problems such as frustrations, tensions, anxiety, and emotional upsets in day to day life. So, the study of emotional life is now getting bigger aspect, similar with social structure. As emotional Maturity and self concept do play essential role in the life of human being, one is probable to have higher emotional maturity in order to lead an effective for increase performance. Human behavior is continuously affected by the emotional maturity and self concept level that we possess.

The results of the present study will help to recognize Self concept and emotional Maturity of among Doctors And Managers. This will further help to identify Doctors And Managers who may have potential to be of high competence. Professionally Doctors And Managers work profile are full of challenges, so Doctors and Managers in their professional life must show the required psychological attributes including self concept and emotional Maturity to gather together the challenges effectively. The variables self concept and emotional Maturity need to be studied appropriately, both from the theoretical and practical point of view. The research can help the build up their attitude towards self and maturity to improve their performance.

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OBJECTIVES

- i. To study and compare the Emotional Maturity of Doctors and Managers.
- ii. To study and compare the Self Concept of Doctors and Managers.

HYPOTHESES

- i. There exists no significant difference between Doctors and Managers on Emotional Maturity.
- ii. There exists no significant difference between Doctors and Managers on Self Concept.

DELIMITATION OF THE STUDY

- The geographical area of the study was delimited to the Private practicing Doctors and Private sector Managers of Nashik and Jalgaon City.
- Doctors And Managers have been selected on simple random bases.
- Sample for the study was delimited to Doctors and Managers in the age range between 30 and 45.
- The present study is delimited to Self Concept and Emotional Maturity only.
- Only male Doctors and Managers were selected for the investigation

SAMPLE:

For this study, 100 professionals (50 Doctors and 50 Managers) in the age range of 30 to 45 years were randomly selected from the Jalgaon and Nashik District of Maharashtra state.

VARIABLES:

Independent variables:	Area	:	1. Nashik	2. Jalgaon
	Profession	:	1. Doctor	2. Manager

Dependent variables: 1. Self concept
2. Emotional Maturity

TOOLS:

The following tools were used for collecting data for the study:

- I. Self Concept scale by Dr. Muktarani Rastogi (1974) was used to evaluate the self-concept of the participants. Two scales -one consisting of 15 adjectives to measure psychological self-concept and the other comprising of 10 adjectives for measuring physical self-concept were used. The lists of adjectives were presented with 7-point rating scale.
- II. Emotional Maturity Scale (EMS) (Singh & Bhargava (1991)) this scale has 48 questions related to the following 5 categories: Emotional Regression, Emotional Instability, Social Maladjustment, Personality Disintegration and Lack of Independence. The test-retest

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reliability has been estimated at 0.75 and validity against the Adjustment Inventory by Singh and Bhargava (1980) at 0.46.

DATA COLLECTION:

After the selection of tools, the investigator visited Doctors and Managers of selected Districts of North Maharashtra. To ensure quick and complete return of questionnaire, they were properly given to the selected sample of Doctors and Managers. After collection of data in this way, the work of scoring was done strictly according to the instruction given in the respective manuals of the tools and under the observation of Guide. The data collected was subjected to statistical processing and results were obtained.

STATISTICAL ANALYSIS:

In the present study to compare the Doctors and Managers on the self concept and Emotional Maturity one way analysis of a range of was used. For the purpose of the analysis, Descriptive statistics statistical techniques were used. The level of significance was set at 0.05 levels.

RESULTS:

H01 “There exists no significant difference between Doctors and Managers on emotional maturity.

Table 1. Mean, Standard Deviations, and t-Value of the Doctors and Managers (N=50 in Each Group) for Emotional Maturity.

Group	N	Mean	S.D.	‘t’ Value	Level of Significance
Doctors	50	35.32	3.254	.724	N.S.
Managers	50	34.76	4.396		

* Significant at .05 Level.

The above table no. 1 shows the descriptive statistics of the Emotional Maturity. The Mean of Doctors 35.32 and for Managers 34.76, whereas for Doctors S.D. 3.254 and S.D. for Managers 4.396, obtained t-value is .724 which is found no significant at 0.05 level. Therefore, it can be concluded that the H01 “There exists no significant difference between Doctors and Managers on emotional maturity.” is selected.

H2. There exists no significant difference between Doctors and Managers on self concept.

Table 2. Mean, Standard Deviations, and t-Value of the Doctors and Managers (N=50 in Each Group) for self concept.

Group	N	Mean	S.D.	‘t’ Value	Level of Significance
Doctors	50	28.66	5.117	1.035	N.S.
Managers	50	27.64	4.728		

* Significant at .05 Level.

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The above table no. 2 shows the descriptive statistics of the Self Concept. The Mean of Doctors 28.66 and for Managers 27.64, whereas for Doctors S.D. 5.117 and S.D. for Managers 4.728, obtained t-value is 1.035 which is found no significant at 0.05 level. Therefore, it can be concluded that the H₀₂ "There exists no significant difference between Doctors and Managers on self concept." is selected.

FINDINGS

Major findings of the present study are as under:

- There is no significant difference between the Doctors and Managers on emotional maturity.
- There is no significant difference between the Doctors and Managers on self concept.

CONCLUSIONS AND DISCUSSION

From the above said findings we can conclude that the Doctors are high on emotional maturity as compared to Managers but results not shown much differ from emotional Maturity among Doctors and Managers. Doctors are higher on self concept in comparison to Managers. Doctors and managers work profile are not same but this research result shown no difference between doctors and managers self concept and emotional maturity. The finding is supported by Thakur (2002) who in her study "Emotional Maturity as related to Home Environment" found that there exists a positive relationship between home environment and emotional maturity. Also supported by Mukherjee, J. (2000) who pointed out that emotionally mature people are mentally healthy, well adjusted and high on emotional intelligence. The performance development of any area requires integrated personality of society. Based on the finding and discussions, it could be concluded that we must enlarge positive attitude, emotional maturity and positive self concept among Doctors and Managers. Doctors and Managers self concept and Emotional Maturity helps to make the performance better. The Doctors and Managers generation should be emotionally stable and self confident to do better in their professional career and able to face the any circumstances in future.

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Say No to Fear

Sonal D. Parmar¹

ABSTRACT:

Why do people fear other people and things? Why do many folks feel self-conscious around others? What's behind shyness? What can we do about it? Fear of other people is a big fear. But there is a way to conquer it. You can conquer fear of people if you will learn to put them into proper perspective. Do what's right and keep your confidence. That's thinking you to success. Here is a psychological principle that is worth reading over twenty-five times. Read it until it absolutely saturates you: To think confidently, act confidently. Be fearless with the help of these five procedures to your work; 1. Action cures fear, Isolate your fear and then take constructive action. 2. Make a supreme effort to put only positive thoughts in your memory bank. 3. Put people in proper perspective. 4. Practice doing what your conscience tells you are right. 5. Make everything about you say, "I'm confident, really confident."

Keywords: *Fear, Confident, Conquer.*

Most fear today is psychological. Worry, tension, embarrassment, panic all stem from mismanaged, negative imagination. But simply knowing the breeding ground of fear doesn't cure fear. It is only in our mind, it doesn't exist. Fear is success enemy no. 1. Fear stop people from capitalizing on opportunity; fear wears down physical vitality; fear actually makes people sick. Fear closes your mouth when you want to speak. Fear uncertainty, lack of confidence-explains why people accomplish little and enjoy little?

"You gain strength, courage and confidence by every experience in which you really stop and look fear in the face. We have to Understanding Fear and Phobias.

For something that can cause as much suffering as a phobia, as remarkable how many people lay claim to having one and how many of them are wrong. Experts say, a true phobic reaction is a whole different category of terror, a central nervous system wildfire that's impossible to mistake. In the face of the thing that triggers fear, phobic's experience sweating, racing heart, difficult breathing and even a fear of imminent death all accompanied by an overwhelming need to flee. For every phobia, the infinitely inventive and infinitely fearful human mind can create; there is a word that has been coined to describe it.

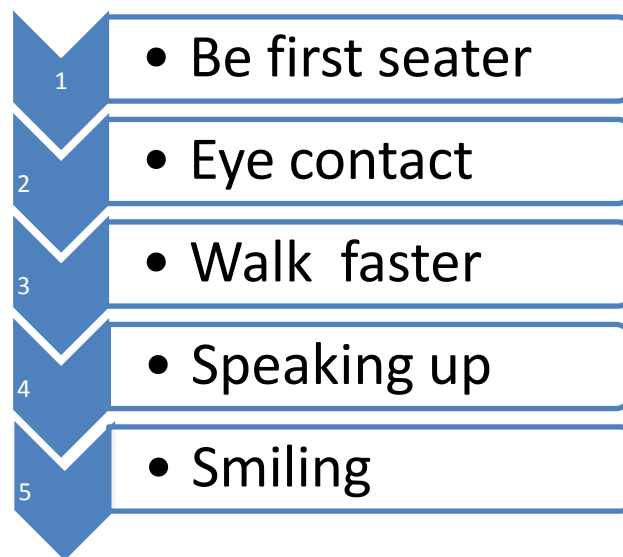
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Say No to Fear

Most psychologists now assign phobias to one of the three broad categories: Social phobias, in which the sufferer feels paralyzing fear at the prospect of social or professional encounters; Panic disorders, in which the person is periodically blinded by an overwhelming fear for no apparent reason; and Specific phobias -- fear of snakes and enclosed spaces and heights and the like. Of the three, the specific phobias are the easiest to treat, partly because they are the easiest to understand.

OVERCOMING FROM FEAR

It's perfectly natural to experience fear in one of many forms. But the usual methods for combating it simply don't work. We have to outcome from fear. First step is to build up confidence. It will help to destroy fear.



Be a First Sitter:

Ever notice in meeting in office, classroom, and other kinds of assemblies how the back seats fill up first? Most folks scramble to sit in the back rows so they won't be "too conspicuous." And the reason they are afraid to be conspicuous is that they lack confidence.

Sitting up front builds confidence. Practice it. From now on make it a rule to sit as close to the front as you can. Sure you may be a little more conspicuous in the front but remember there is nothing inconspicuous about success

Eye contact

How a person uses his eyes tells us lot about him. Instinctively, you ask yourself questions about the fellow who doesnt look you in the eye. "What is he trying to hide? What is he afraid of? Is he trying to put something over on me? Is he holding something back?"

Say No to Fear

Commonly, failure to make eye contact says one of two things. It may say, "I feel weak beside you. I feel weak beside you. I feel inferior to you. I am afraid weak beside you. I feel inferior to you. I am afraid of you." Or avoiding another person's eyes may say, "I feel guilty. I have done something or I have thought something that I don't want you to know. I am afraid if I let my eyes connect with yours, you will see through me." You say nothing good about yourself when you avoid making eye contact. You say, I am afraid. I lack confidence. Conquer this fear by making yourself look the other person in the eyes. Looking the other person in the eye tells him, I am honest and above board. I believe in what I am telling you. I am not afraid. I am confident.

Walk Faster

Psychologists link slovenly postures and sluggish walking to unpleasant attitudes towards oneself, work and the people around us. But psychologists also tell us you can actually change your attitudes by changing your posture and speed of movement. Watch, and you discover that body action is the result of mind action. The extremely beaten person, the real down and outers, just shuffle and stumble along. They have zero self confidence. Average people have the 'average' walk. They have the look of I really don't have very much pride in myself. Then there is a third group. Persons in this group show super confidence. They walk faster than the average. There seems to be slight sprint in the way they walk. Their walk tells the world, I have got someplace important to go, something important to do. Use the walk 25 per cent faster technique to help build self confidence.

Speaking Up

In working with many kinds of groups of all sizes, I've watched many persons with keen perception and much native ability freeze and fail to participate in discussions. It isn't that these folks don't want to get in and wade with the rest. Rather, it's a simple lack of confidence. If I say something, I'll probably look foolish. I'll just say nothing. Besides, the others in the group probably know more than I. "Each time the conference clam fails to speak, he feels even more inadequate, more inferior. Often he makes a faint promise to himself to speak "next time." This is very important: each time our clam fails to speak, he takes one more dose of confidence poison. He becomes less and less confident of himself but on the positive side, the more you speak up, the more you add to your confidence and the easier it is to speak up the next time.

Speak up. It's a confidence-building vitamin. Put this confidence builder to use. Make it a rule to speak up at every open meeting you attend. Speak up, say something voluntarily at every business conference, committee meeting, community forum you attend. Make no exception. Comment, make a suggestion, and ask a question. And don't be the last to speak. Thousand conscientious people have developed confidence through this all thing.

Smiling

A big smile gives you confidence. A big smile beats feel; rolls away worry, defeats despondency. And a real smile does more than cure just your ill feeling. A real smile melts away the opposition of others-and instantly, too. Another person simply can't be angry with you if you give him a big, sincere smile. That's why it truly says that smile and laugh is best medicine.

CONCLUSION:

Fear is created not by the world around us, but in the mind, by what we think is going to happen. Here is a psychological principle that is worth reading over twenty-five times. Read it until it absolutely saturates you: To think confidently, act confidently. Be fearless with the help of these five procedures to your work; 1.Action cures fear, Isolate your fear and then take constructive action. 2. Make a supreme effort to put only positive thoughts in your memory bank.3. Put people in proper perspective. 4. Practice doing what your conscience tells you are right. 5. Make everything about you say, "I'm confident, really confident.

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Consumer Attitude and Perception towards Green Products

SuboohYusuf¹, Zeenat Fatima²

ABSTRACT:

"Green Marketing" refers to holistic marketing concept wherein the production, marketing consumption and disposal of products and services happen in a manner that is less detrimental to the environment with growing awareness about the implications of global warming, non-biodegradable solid waste, harmful impact of pollutants etc. Both marketers and consumers are becoming increasingly sensitive to the need for switch in to green products and services (Mudhassir, 2010). Green consumers can be defined as one:- "*Who is mindful of environment related issues and obligations, and is supportive of environmental causes to the extent of switching allegiance from one product or supplier to another even if it entails higher cost*". Thus the purpose of the research was to explore the concept of green marketing, or green products in relation to consumer behavior. Samples were selected through random sampling. 70 college going students of Aligarh Muslim University participated in the research. Green consumer value scale by Haws et al (2010) and sustainability endorsement scale by William A. McConochie were used to measure the consumer behaviour. For statistical analysis Pearson correlation was used.

Keywords: *Green Marketing, Green Products, Green Consumer, detrimental, Consumer Behaviour*

At present, the world is facing an environmental crisis, which influences our behavior to protect our planet. The detrimental consumption behavior of the human being is a cause of the environmental degradation. (Islam & Zabin, 2003). That is why the consumer behaviour and attitude transit towards the green product or green marketing concept.

There are two ways of defining the word Green Marketing. The first way is marketing and the second way is a Marketing Philosophy. As far as marketing is concerned, it is defined as a marketing of industrial products and services. It especially emphasis in marketing of a specialized kind of product which is known as Green Product (it includes goods such as fuel efficient cars or recycled products as well as green ideas such as save oil or conserve natural habitat).

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Hence, the products those are manufactured through green technology and that caused no environmental hazards are called green products. Promotion of green technology and green products is necessary for conservation of natural resources and sustainable development. As a philosophy, green marketing runs side by side with the societal marketing concept and endorse the view that satisfying the consumer needs is not enough rather marketing should considered the environment of the society as a whole. Therefore, it is a part of corporate social responsibility.

Green marketing emerges from societal marketing.(**Kotler, 1999**). "Green Marketing" refers to holistic marketing concept wherein the production, marketing, consumption and disposal of products and services happen in a manner that is less detrimental to the environment with growing awareness about the implications of global warming, non-biodegradable solid waste, harmful impact of pollutants, etc. Both marketers and consumers are becoming increasingly sensitive to the need for a switch into green products and services. . (Mudhassir, 2010).

The produce goods and services are, ultimately, used by the consumer for satisfying their needs and wants. The green marketing concept is incomplete until and unless consumers get a higher degree of satisfactions and benefits from the sacrificing resource in acquiring the green products. It is behaviour and perception of a consumer toward green product through which the success or failure can be evaluated. According to Nayan R. Sinha, A green consumer is one who is very concerned about the environment and, therefore, only purchases products that are environmentally-friendly or eco-friendly. Products with little or no packaging, products made from natural ingredients and products that are made without causing pollution are all examples of eco-friendly products. The green consumer would be the type to drive a hybrid vehicle, buy products made with hemp or those made from recycled materials.

Dodds, John (2006) observed that harnessing the consumer's power gives a positive effect in changing the environment. The so-called "green consumer" movement in US and other countries help them to reach the critical mass and all this directly affect the shoppers' minds effectively. This study helps us in knowing that how consumers transform to green consumers.

Hans, Jim (2007) noted that green marketers taken the advantage of confusion prevailing in the market place among the consumers' minds. They purposely make false or exaggerate 'green claims'. Following the same logic, it becomes possible to argue that green marketing leads to fantasy in the world where consumers need eco-friendly environment.

D'Souza et al. (2007) stated that demographics tend to play an important role in regards both the interest of green product and green certification.

Green Trade & Development (2008) discussed that consumers is said to be changing their attitude and perception and profess a strong willingness in favour of eco-friendly environment. This concept helps us in realizing a fact that how much a consumer is conscious about their environment.

Cervellon et al. (2010) and Yiridoe et al. (2005) demonstrated that the demand of green products is increasing day by day all over the world and as such there is concern for understanding how green is a green product. One of the most important restraints to the development of green products is the lack of consumer trust and the lack of information. This shows us that consumer's attitude and perception play an important role in promoting the green product.

Since 1990, there have been myriad of researches done on analysing the consumer attitude towards green products at academics as well as industrial level. Most of the studies are done in developing countries and capture that population, whose standard of living, taste and preference are totally different from us, but such studies, however, is not valid in the context of developing countries where most of the people are on the middle level income group.

This exploratory research discussed the concept of green marketing and its connection with consumer attitude and perception. The data collection is based on a field survey of college or university going youths.

H₁- Consumer attitude and perception are positively related to each other.

H₂- People are concerned about a green product.

RESEARCH METHODOLOGY

Sampling and data collection-

The random sampling method was adopted for gathering samples of 70 students from Aligarh Muslim University. Scales used in present study were Green Value Scale by **Haws et al (2010)** and Sustainability Endorsement Scale by **William A. McConochie** which were five-point scale.

Statistical tool used-

The collected data had been analysed by using mean rating scale, correlation, pie chart and bar diagram.

ANALYSIS AND INTERPRETATION-

Descriptive Statistics

- 1) Below is the table showing mean value and standard deviation of sustainability endorsement and consumer value.

TABLE 1

	Mean	Standard deviation	N
Sustainability endorsement scale	49.9125	4.48681	80
Consumer value scale	1.6871	11.32064	80

The above table shows the mean and standard deviation of sustainability endorsement scale and green consumer value scale. The mean of sustainability endorsement and consumer value scale was found to be 49.912 and 1.6871 respectively.

- 2) Correlation computed by using Pearson correlation between consumer attitude and perception towards green marketing.

TABLE 2

		Ses	Gcvs
Sustainability endorsement scale	Pearson Correlation Sig. (2-tailed) Sum of Squares and Cross-products Covariance N	1 1.590 20.131 80	.137 .225 550.988 6.975 80
Green consumer value scale	Pearson Correlation Sig. (2-tailed) Sum of Squares and Cross-products Covariance N	.137 .225 550.988 6.975 80	1 1.012 128.157 80

From above table it can be inferred that coefficient correlation was found to be 1.590 which means there is a positive relation between consumer attitude and perception. When there is increase in attitude there will be increase in perception. **Selvakumar & Ramesh Pandi (2011)** indicated that Green Marketing is not all about manufacturing green products and services but encompassing all those marketing activities that are needed to develop and sustain consumers' eco-friendly attitudes and behaviours in a way that helps in creating minimal detrimental impact on the environment

Consumer Attitude and Perception towards Green Products

3) People heard of “Environment Friendly or Green Marketing” products/practices

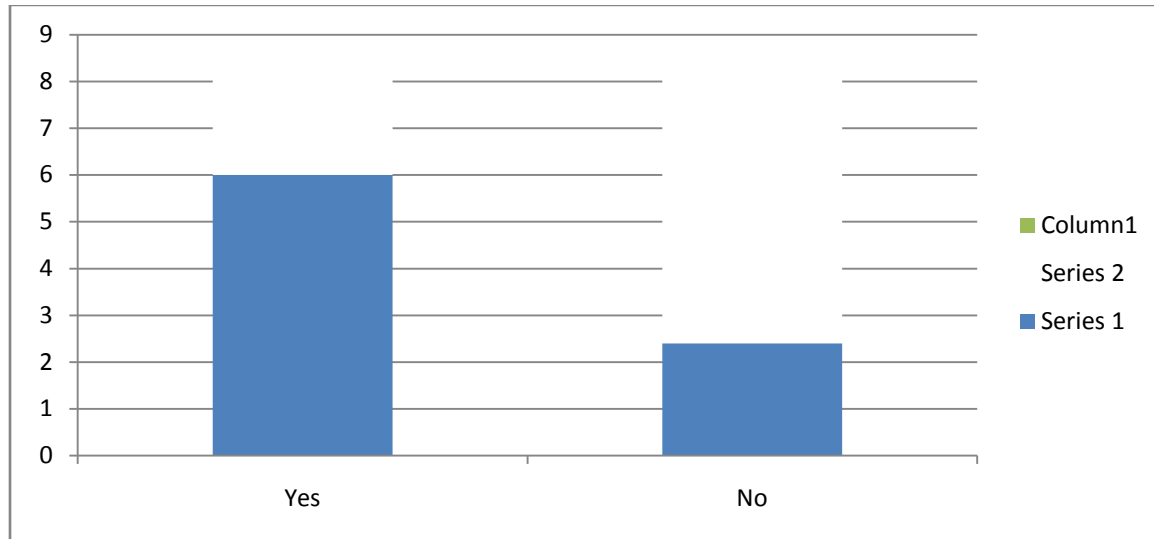
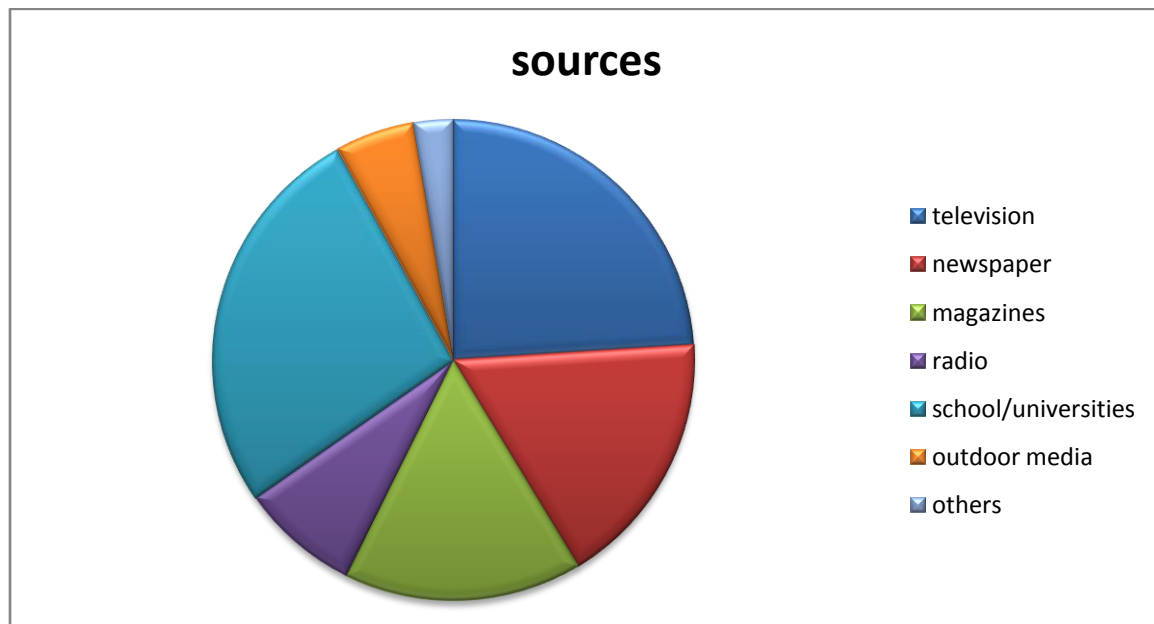


TABLE 3

From Above bar diagram it can be seen that people are aware of green products. About 60% of the respondents were aware of the green products

4) Sources from where people get information about Green Marketing

TABLE 4

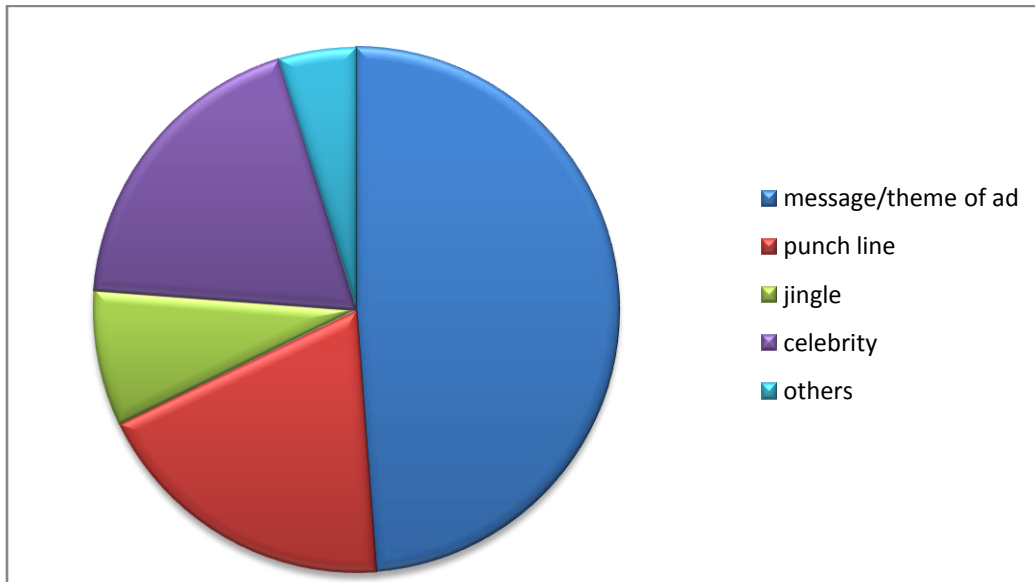


Above pie chart states that most of the information about green marketing people get from school/universities then newspaper and least from outdoor media and others. **Robert Dahlstrom**

(2011) examined that Green Marketing has positive influences on multiple participants in the economy.

5) Rate the components of advertisements on a scale of 1 to 5

TABLE 5



Above pie chart indicates that in the advertisement the most important component is a message, then punch line and least important is a jingle and others. **Mamatha (2010)** found that brand, price, store, design/features and advertisement were the most crucial five factors in revealing the quality of the products.

CONCLUSION

It has been observed from the analysis that large population thinks that eco-friendly products are good for the environment and are also healthy for them. Eco-friendly products are good quality and the performances of these are better than the conventional products.

These products are easily available in the market with reasonable prices. **Ranjith&ElaGoyal (2011)** highlighted that highest brand memory, brand recall, brand that connects with the people, pricing, overall satisfaction in the long life of the product and communication programs designed by the company are the parameters that influence the consumer perception.

The Attitude of the people towards the eco-friendly products is remarkable. They believe that the eco-friendly products provided them a good packaging design. **Andrew S.Winston (2010)** summarized in their study that Companies and countries must deal with current and longer-term environmental issues while simultaneously working on

current economic challenges. **Robert Dahlstrom (2011)** examined that Green Marketing has positive influences on multiple participants in the economy. The environment, developing economies, consumers, corporate strategy, the product, production processes, and supply chain benefit from green marketing. **Roger A Kerin et al (2007)**, Green Marketing takes many forms. It comes from product development opportunities that emanate both from consumer research and its “Pollution Prevention Pays” program. This program solicits employee suggestions on how to reduce pollution and recycle materials.

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Well Being and Occupational Stress of Women Teachers of Primary Schools

Dr. Utpal Kalita¹

ABSTRACT:

The elementary school teachers and especially women teachers are facing new challenges and need to be supported by the educational administrators and the state. In order to strengthen the role of women teachers, there is needed to look at well-being and occupation stress of women teachers'. The present paper is justified to study the well being and occupational stress of women teachers of primary schools. For this, Well Being Scale and Occupational Stress Scale for are used as tools of data collection. Main findings of this study are: (i) very few women teachers fall in low well being level category while majority of the women teachers fall in the category of high well being, (ii) few women teachers fall in high stress level category while majority of the women teachers fall in the category of average as well as less stress well being category and (iii) there exists significant relationship between well being and occupational stress of women teachers of primary schools.

Keywords: *Well Being, Occupational Stress, Primary Schools, Women Teachers.*

Today's women are not just busy in their domestic work but are also playing others roles in the society as teachers, doctors, lawyers, engineers, astronauts, ministers etc. The role and existence of today's women is changed. She is now playing a role of working women in our society. It is generally observed that most of the working women are involved in teaching profession. Women teachers play an important role in shaping the destiny of a nation. Women teachers are more responsible as they are performing their dual duties i.e. in home as well as in an organization.

Teaching at primary stage is being affected by recruitment policy, promotions and placements. In the wake of ever increasing concern for universal elementary education, teachers' role is much more under a threatened state. The elementary school teachers and especially women teachers are facing new challenges and need to be supported by the educational administrators and the state. In order to strengthen the role of women teachers, there is needed to look at well-being and occupation stress of women teachers'. Well being requires harmony between mind and body. It implies a sense of balance and ease with the pressures in a person's life.

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Again occupational stress refers to physical, mental and emotional wear and tear brought about by incongruence's between two requirement of job and capabilities, and resources and need of the teacher to cope with job demands.

REVIEW OF LITERATURE

There were many studies undertaken which reveal well being and occupational stress of different samples. Few of them are mentioned below.

Belcasto and Gold (1984) studied teacher stress and burnout implications for school health personnel and concluded that occupational stress proved to be a serious health risk to teachers.

Martin and Ickovics (1987) studied the effects of stress on the psychological well being of army wives. The data supported the view that both military life stresses have important independent relationship to the general psychological well being of army wives.

Wedrich (1995) found that subjects with higher well being have less stress and strain than subjects with lower well being.

Aggarwal (2004) observed significant differences in mental, emotional and total well being of male and female teacher trainees. But urban and rural teacher trainees does not differ significantly in physical, mental, social, emotional spiritual and total well being.

Justification of the Study

The teaching profession at different stages of education i.e. elementary, secondary and tertiary gives a set of challenges in which teachers and especially women teachers demonstrate or display emotions while they may not actually feel. Teachers and especially women teachers are expected to demonstrate love and kindness to students. They are also expected to serve as mentors and motivate students who are unwilling to learn. Such kind of expectations leads to a kind of discrepancy between the expected and actual emotion of teachers leading to some kind of stress and this may be detrimental to well-being of teachers and especially women teachers. These psychological attributes are crucial for exploration to know their dynamics in the personality make up of teachers.

Further, teaching at elementary stage is also being affected by recruitment policy, promotions and placements. The school teachers in general, and at elementary stage are under heavy pressure in the wake of universalisation of elementary education and implementation of right to education for the same. In the wake of ever increasing concern, teachers' role is much more under a threatened state. The elementary school women teachers are facing new challenges and need to be supported by the educational administrators and the state. In order to strengthen the role of women teachers, there is needed to look at well-being of women teachers'. The teaching learning process, to provide quality education, is to be taken care of by teacher as all students are not in

position of same level of learning outcome. Hence women teachers dealing with such groups of student face a high level of stress and that is detrimental to their well being. Empowerment of women teachers are not up to the mark because of their occupational stress. Hence it was thought worthwhile to undertake the present research problem.

STATEMENT OF THE PROBLEM

The research problem undertaken is entitled as “A Study on Well Being and Occupational Stress of Women Teachers of Primary Schools with Special Reference to Kamrup District, Assam”.

The following terms used in the research have been defined with a view to clarify the connotation in which they are used in the present research study.

Well Being: Well-being connotes individual's feeling of contentment, happiness, satisfaction with life experiences and one's role in the world of work in terms of 'physical', 'mental', 'social', 'emotional' and 'spiritual' aspects.

Occupational Stress: Occupational Stress refers to physical, mental and emotional wear and tear brought about by incongruence between the requirement of job and capabilities, resources and need of the teacher to cope with job demands.

Women Teachers: The term refers to those women who are engaged in teaching profession.

Primary Schools: Primary schools are established under the rules and regulations framed by the Government. These are under the administrative control of Directorate of Elementary Education, Government of Assam.

OBJECTIVES OF THE STUDY

Main objectives of this study are:

1. To study the well being of women teachers of primary schools.
2. To make a comparative study on the well being of single and married women teachers of primary schools.
3. To study the occupational stress of women teachers of primary schools.
4. To make a comparative study on the occupational stress of single and married women teachers of primary schools.
5. To find out the significant relationship between well being and occupational stress of women teachers of primary schools.

HYPOTHESES OF THE STUDY

The following hypotheses are formulated to test the objective mentioned above:

1. There is no significant difference between single and married women teachers of primary schools in relation to their well being.
2. There is no significant difference between single and married women teachers of primary schools in relation to their occupational stress.
3. There is no significant relationship between well being and occupational stress of women teachers of primary schools.

DELIMITATIONS OF THE STUDY

Keeping time and resource constraints in view, the study is delimited to the following:

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- i. The study was confined to women teachers of primary schools of Rani and Chhaygaon Development block of Kamrup district, Assam only.

PLANS AND PROCEDURE

a. Selection of Research Design: Considering the nature of the problem, objectives, hypotheses and the nature of data to be collected, the Descriptive Survey Method is adopted in the present study.

b. Population and Sample: The population of the present study comprises all the women teachers of primary schools of Rani and Chhaygaon Development Block, Kamrup district, Assam. The sample of the present study is selected from 20 primary schools by applying random sampling technique. From these schools, 120 women teachers have been selected as sample.

c. Research Instruments: Following instruments are applied in this research study for collection of relevant data from the sample.

i. Well Being Scale: This scale was prepared and standardized by Singh and Gupta (2001). It consisted of five sub-scale namely-physical well being, mental well being, social well being, emotional well being and spiritual well being. Each sub-scale has ten items and there are 50 items in total. It consist 29 positive items and 21 negative items. Test-retest reliability of the scale was 0.98 and split half reliability was found 0.96. Content and concurrent validity of the Well being Scale was established.

ii. Occupational Stress Scale: This scale was prepared by Satvinder Pal Kaur (2006) which consists of 30 items. The reliability of the scale pertaining to occupational stress was established by test-retest technique which was found to be 0.86 (N=50). To find out the construct validity, the correlation coefficient between scores of each component and the total score was calculated by the method of biserial correlation.

d. Statistical Support: The data collected through the tools was subjected to statistical analysis and results were drawn out. Simple Frequency Percentage and Mean of the total sample were computed in case of two variables; group comparisons were done by applying t-tests.

ANALYSIS AND INTERPRETATION

Objective No. 1: To study the well being of women teachers of primary schools.

Table 1: Range of Scores and Percentage of Women Teachers under Various Categories of Well Being

Category	Range of Scores	N	%
High	177-250	76	63.33
Average	125-176	40	33.33
Low	50-124	4	3.34

The scores of the total sample were distributed into various levels to assess respondents with high well being (177-250), average well being (125-176) and low well being (50-124). The overall view of the Table 1 depicts that very few women teachers fall in low well being level category while majority of the women teachers fall in the category of high well being and some women teachers fall in the category of average well being.

Well Being and Occupational Stress of Women Teachers of Primary Schools

Table 2: Mean of Different Types of Well Being of Women Teachers

Sl. No.	Name of Well Being	M	Remarks
1.	Physical Well Being	36.67	More than Average
2.	Mental Well Being	34.55	More than Average
3.	Social Well Being	33.89	More than Average
4.	Emotional Well Being	35.03	More than Average
5.	Spiritual Well Being	36.35	More than Average
6.	Total Well Being	176.19	More than Average

From the above table, it is found that mean score of all the aspects of well being and over all well being fall under the range of more than average category. These mean score indicate that women teachers enjoy overall good sense of well being.

Objective No. 2: To make a comparative study on the well being of single and married women teachers of primary schools.

H₁: There is no significant difference between single and married women teachers of primary schools in relation to their well being.

Table 3: Mean, S.Ds. and ‘t’ ratio for Well being of Single and Married Women Teachers of Primary Schools

Sl. No.	Well Being	Single (47)		Married (73)		t-value	Remarks
		Mean	S.D.	Mean	S.D.		
1.	Physical Well Being	35.85	5.74	36.69	5.00	0.82	NS
2.	Mental Well Being	33.48	6.60	35.23	6.37	1.39	NS
3.	Social Well Being	33.27	6.29	34.28	5.94	0.87	NS
4.	Emotional Well Being	34.82	8.76	35.16	7.25	0.21	NS
5.	Spiritual Well Being	35.76	7.41	36.72	6.86	0.71	NS
6.	Total Well Being	173.14	24.02	178.15	22.69	1.13	NS

From the above table, it is revealed that physical well being among single women teachers is higher than other aspects. And in case of married women teachers’ counterpart, physical and spiritual well being is higher than other aspects. Again there exists no significant difference between single and married women teachers in case of in all the aspects of well being and over all well being. Thus, it is evident that the analysis completely accepts the null hypothesis.

Objective No. 3: To study the occupational stress of women teachers of primary schools.

Table 4: Range of Scores and Percentage of Women Teachers under Various Categories of Occupational Stress

Category	Range of Scores	N	%
Highly Stressed	108 and Above	24	20.0
Average	89-107	51	42.5
Less Stressed	30-88	45	37.5

The scores of the total sample were distributed into various levels to assess respondents with high stress (108 and above), average stress (89-107) and low stress (30-88). The overall

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view of the Table 5 depicts that few women teachers fall in high stress level category while majority of the women teachers fall in the category of average as well as less stress well being category.

Objective No. 4: To make a comparative study on the occupational stress of single and married women teachers of primary schools.

H₂: There is no significant difference between single and married women teachers of primary schools in relation to their occupational stress.

Table 5: Comparison of Occupational Stress of Single and Married Women Teachers of Primary Schools

Variables	N	Mean	SD	t-ratio	Remarks
Single Women	47	89.48	14.48	1.62	NS
Married Women	73	94.04	15.76		

The table shows t-ratio between Mean scores of Single and Married women teachers in case of occupational stress. The t-ratio 1.62 is not significant and hence, it is said that there is no significant difference between single and married women teachers of primary schools in relation to their occupational stress. Thus, null hypothesis is accepted here.

Objective No. 5: To find out the significant relationship between well being and occupational stress of women teachers of primary schools.

H₃: There is no significant relationship between well being and occupational stress of women teachers of primary schools.

Table 6: Significant Relationship between Well Being and Occupational Stress of Women Teachers of Primary Schools

Variables	N	r-ratio	Remarks
Well Being	120	.193	Significant at 0.05 level
Occupational Stress	120		

The table shows r-ratio between scores of Well Being and Occupation Stress of women teachers. The r-ratio .193 is significant at 0.05 level of significant. Hence, it is said that there exists significant relationship between well being and occupational stress of women teachers of primary schools. Thus, it is evident that the analysis completely rejects the null hypothesis.

FINDINGS AND DISCUSSIONS

- 1) Very few women teachers fall in low well being level category while majority of the women teachers fall in the category of high well being.
- 2) All the aspects of well being and over all well being fall under the range of more than average category. These mean score indicate that women teachers enjoy overall good sense of well being.
- 3) Physical well being among single women teachers is higher than other aspects and in case of married women teachers' counterpart, physical and spiritual well being is higher than other aspects.
- 4) There exists no significant difference between single and married women teachers in case of in all the aspects of well being and over all well being.

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- 5) Few women teachers fall in high stress level category while majority of the women teachers fall in the category of average as well as less stress well being category.
- 6) Mean score of married women are higher than single women.
- 7) There is no significant difference between single and married women teachers of primary schools in relation to their occupational stress.
- 8) There exists significant relationship between well being and occupational stress of women teachers of primary schools.

RECOMMENDATIONS

1. Higher authorities as state government and education boards should set the curricula and make educational policies which improve the well being of elementary school teachers:
 - a. Teachers should be provided suitable rewards.
 - b. They should be provided congenial environment in the schools.
 - c. Teachers should be given more independence, respect and say in the decision making.
 - d. Boost the confidence of the teachers by way of providing better organizational conditions.
2. As overall well being of government elementary school teachers is more as compare to teachers working under panchayati raj institutions on contract basis. Thus state government must take every effort to make change in the pattern of recruitment policy and regularized services of teachers working on contract basis.
3. Coping with stress may be built with following strategies:
 - a. In behavioural assignments, the teachers need to be instructed to have a daily routine like thinking positively, living in the present, sharing their feelings, enjoying music etc.
 - b. Biofeedback, cognitive training, problem-solving skills, assertiveness etc. are effective tools for managing stress and need to be promoted among elementary school teachers which may lead to reduction in negative emotional experiences, associated with stress and improvement in creativity, achievement, productivity, quality of life and sense of well being.
4. Teacher education institutions should play a significant preventive role in developing well being, emotional intelligence, self-esteem and reducing stress by training the pupil teachers.
5. The on-going in-service teacher education programmes should be evaluated in terms of their effectiveness in developing wellness, emotional intelligence, to explore high self-esteem and techniques reducing stress among teachers for their onward transmission to new generation.

CONCLUSION

As the world is advancing technologically, organizational expectations are also increasing and due to tough competition the need for meeting these challenges has become vital. With this drive to achieve, many psychological aspects have become apparent and coping with stress is one of them.

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Academic Achievement Test in English and Mathematics of Secondary School Students in relation to Gender Differences

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ABSTRACT:

The present research study aims to examine the academic achievement of secondary school students in relation to gender differences. The study was carried out on a sample of 100 male and female students studying in class IXth of Aligarh District, U.P. India. Two self developed tools were applied which finally analysed by applying Mean, SD, t-Test and Pearson's Coefficient Correlation (r). Results revealed a significant difference between male and female students in English achievement scores and also no significant difference was found between English and Mathematics achievement scores of IXth grade male students. Results also revealed low positive correlation between English and Mathematics achievement of male students of IXth grade and moderate positive correlation between English and Mathematics achievement of female students of IXth grade. The results suggested to the need of motivation and encouragement for enhancing academic achievement scores of male and female students.

Keywords: *Academic Achievement; Gender Differences; English; Mathematics; Secondary School Students.*

English and Mathematics have become a substantial and integral part of organised society. There is a close interaction between English and Mathematics and the economic, social, political and educational issue of the society, Therefore, there is hardly any need to justify the place of English and mathematics in a scheme of general education for school children. There is an indispensable relationship between these two subjects and also determines the extent and length of educational development of any community, society and country as a whole. There is much discussion about the relationship between gender and achievement in English and Mathematics education in these days. The concern has arisen because less number of females enters the academic and professional areas related to English and Mathematics. Here it would appropriate to understand the word "Gender". It is the word that is inclusive of both boys and girls on the basis of social justice and mutual respect.

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Meanwhile, investigation of gender equity has attracted the attention of many scholars in national and international study. According to Stevenson (1992) cross cultural research is necessary to assess the generality of gender differences in academic performance and for gaining insight into variables that might be related to such differences.

By comparison, gender differences in achievement, especially English have not been consistent and continue to be a much debated topic. Much of the work investigating those goals has been conducted in the domain of Mathematics. Results from studies that have considered the academic goals in English appear to be consistent with findings in Mathematics. Neog, S (1990) reported that the over achievers in English were found to be more prove to be women wanted, less intelligent, emotionally less stable, less enthusiastic, less adventurous, socially group depended and less controlled than the over achievers in Mathematics. Rangappa (1993) found that a successful language learner at upper primary level has a high Mathematical ability and achieve a high score in other subject as well. In Mathematics studies have shown that boys hold more stereotyped views than girls do. Friedman (1989) noted that until age of 10 either no differences between genders or differences favouring are observed and also observed that in five of seven studies of XII grade boys out performed XII grade girls.

It is hard to find a more controversial topic in recent researches than of sex differences in the performance of English and Mathematics. Keeping in view for going discussion, it was thought appropriate to study the academic achievement of boys and girls of IXth grade students in subjects English and Mathematics achievement. These differences have not been studied adequately in Indian condition. This being the reason the researchers undertook the present study which attempt to investigate gender differences in English and Mathematics.

REVIEW OF THE LITERATURE

Heller & Parsons (1981) studied the sex differences in teacher's evaluative feedback and student's expectancies for Mathematics. Results revealed no sex differences in the pattern of evaluative feedback used by teacher. No difference was also resulted in student's expectancies for success on familiar tasks. However, girls are found with lower expectancies than boys on unfamiliar or future tasks. Meese & Parsons (1982) carried out their research on sex difference in Mathematics achievement: towards a model of academic choice and concluded that competence in Mathematics has long been identified as a critical skill directly related to educational and occupational choice. As compared to men, fewer women elect to take advance level of Mathematics course to enter mathematically oriented career. Dass, P.A (1984) examined the English reading comprehension of English medium students of IXth grade. Study revealed that the mean scores of girls were higher than boys. Sex difference was also found on reading comprehension in English. Friedman (1989) performed a Meta analysis on Mathematics and the Gender gap. Study revealed small average sex difference as well as sex differences in performance also showed declined trend over the advancement of years. Hyde et al. (1990)

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carried out a Meta analysis on Mathematics performance with reference to gender differences, and concluded that no gender difference was found in problem solving at elementary or middle school level. A small Gender differences in Mathematics performance were found. Neog (1990) studied about personality characteristics of students in relation to over achievement of in English and Mathematics. Results revealed that women stood on as over achievers in English with the personality characteristics of less intelligent, emotional less stable, less enthusiastic, less adventurous, socially group dependent than the over achievers in Mathematics. Under achievers in English were found more prove to tender mindedness, apprehensive and controlled than the under achievers in English.

Besides above discussed studies, such study like, Bag, Anjali (1990) reported boys showed more proficiency in English usage than girls, Jha (1992) found positive significant correlation between proper attitude of middle school students towards English and Mathematics, Ewers et.al (1993) concluded that male showed more self- efficacy strength for Mathematics task than shown by female counterparts, Skaavik and Ran Kin (1994) reported no significant difference between the sexes in Mathematics achievement, Royer et.al (1999) found no gender difference on simple mathematical retrieval task, Rehman (2003) concluded that a significant difference male and female students in Mathematics achievement, Anjum (2007) found significant difference between academic achievements of high school over and under achiever girls in Mathematics were also tried to study the gender differences in the achievement of Mathematics and English with different dimensions. However, a complete research gap has been marked in relation to the study of gender differences in English and Mathematic achievement of IXth grade students.

DEFINITIONS OF KEY TERMS

English

The term English means when it is used as noun (with a plural verb) when it is used as adjective it can be understood as characteristics or culture of England or of its people. When we go into the origin of English we can derive it from England, one would think. But in fact the language name is found long before the country name. However, here English is considered as a school subject.

Mathematics

According to various definitions, Mathematics is the science of numbers and their operations, interrelations, combinations, generalizations and abstractions and of space configurations and their structure, measurement, transformation and generalization. According to science dictionary, “Mathematics is the science of measurement, relationship, and properties of quantities and sets using numbers and symbols.”

Gender Differences

A gender difference is a distinction of biological and/or physiological characteristics typically associated with either male or female or species in general. While the social sciences sometimes approaches gender as a social construct and gender studies particularly do , research in the

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natural sciences investigates whether biological differences in males and females influences the development of gender in humans. Gender is the characteristics, whether biological or socially influenced, by which people define male and female.

ACADEMIC ACHIEVEMENT

Academic achievement is the performance in academic subjects or the performance in a particular course by academic achievement; we mean the performance of a learner after course of instructions and measure in terms of marks and grades obtained in a given area of knowledge or skills acquired after undergoing a program of instruction. According to C.V. Good (1973). “Academic achievement is the knowledge attained or skill developed in the school subjects usually designed by test scores are makes assigned by Teacher, or both”.

VARIABLES IN THE PRESENT STUDY

Dependent Variable: Academic Achievement of English and Mathematics

Independent Variable: Gender (Male & Female)

OBJECTIVES OF THE STUDY

The purpose of this research project is to find out the Achievement of IXth grade students in English and Mathematics and to investigate whether there is any difference between male and female students in achievement in English and Mathematics of IXth grade students. The objectives of the study are:

1. To see the difference in English achievement between male and female of IXth grade students.
2. To see the difference in Mathematics achievement between male and female of IXth grade students.
3. To see the difference in English and Mathematics achievement of male of IXth grade students.
4. To see the difference in English and Mathematics achievement of female of IXth grade students.
5. To see the relation in English and Mathematics of male of IXth grade students.
6. To see the relation in English and Mathematics of female of IXth grade students.

HYPOTHESES OF STUDY

In the present study the hypotheses have been formulated in a null form. The confidence level for the purpose of excepting or rejecting the hypothesis in the study 0.05, 0.01 and 0.10 levels keeping in view the objective of the study , the following research hypothesis has been formulated and to be tested against the empirical data.

1. There is no significant difference in English achievement of male and female IXth grade students.
2. There is no significant difference in Mathematics achievement of male and female of IXth grade students.
3. There is no significant difference in English and Mathematics achievement of male of IXth grade students.

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4. There is no significant difference in English and Mathematics achievement of female of IXth grade students.
5. There is no relation in English and Mathematics of male of IXth grade students.
6. There is no relation in English and Mathematics of female of IXth grade students.

LIMITATIONS OF THE STUDY

The limitations of study are as follows:

1. The study is conducted only on 100 students of two A.M.U's Secondary Schools. One cannot generalise this research to the whole country because of the difference in condition and circumstances.
2. Though various statistical techniques could have been used for analysis of the data but due to lack of time, t-test and product moment correlation coefficient(r) are used.
3. The results that may have been reported reflect merely what students' achievement in English and Mathematics in schools of (A.M.U.) and the findings may be quite different at another time or in other cultural setting.
4. The data obtained and findings reported concerning achievement of students do not indicate what 'ought to be' nor do they simply 'what has been found' is best and true once and for all.
5. The generalization of the findings of this study is limited to secondary schools of A.M.U. Aligarh, U.P. India.

METHOD

The present study is descriptive in nature. The researcher has adopted survey method to carry out the study. The school survey is the comprehensive study of existing conditions of the school.

Population and Sample

The sample of the study consists of 100 students and was selected from two schools of AMU, districts Aligarh, U.P. India. Out of 100 students of IXth grade, there were 50 boys and 50 girls.

Tools Used in the Study

In order to meet the objectives of the study, following tools were used:

1. English Achievement Test for IXth grade students.
2. Mathematics Achievement Test for IXth grade students.

Above mentioned both tests are constructed by the researcher to test the achievement in English and Mathematics. Each test is consisted of 20 objectives type questions of the concerned disciplines. Summation of marks or scores achieved by the students in all the questions was considered as his or her achievement scores in both subjects. The scoring was done on the basis of responses of the students on the every items of the each scale and score 1 was awarded on each correct answer and 0 for wrong option, the securing maximum score 20 and minimum of 0 on each scale.

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Statistical Techniques Used

The analysis of data is done by using the following statistical techniques: Means, Standard deviation (SD), Standard error of the mean (SEM), Standard error of the difference between two means (SED), t-Test (to see the significance of the difference between two means), Correlation (r) {to see the relationship in the academic achievement score of English and Mathematics}.

ANALYSIS AND INTERPRETATION OF THE DATA

Table 1: Gender Wise Significant Differences in Student's Achievement in English of IXth Grade

Gender	N	Mean achievement score	% of mean achievement score	Standard deviation(SD)	t-value	Level of significance
Male	50	15.92	79.6%	3.08	2.45	0.05
Female	50	13.62	68.1%	3.20		

The total number of male and female students of IXth grade was 50 each as indicated by table 1. The mean Mathematics achievement score of male student is 16.36 and SD=0.99. In case of female students the mean Mathematics achievement scores is 15.0 and standard deviation SD is zero. The statistically calculated value of t is 3.68 which is significant at 0.01 level with 98df. The result clearly indicates that there is difference between mean scores of Mathematics of male and female students of IXth grades. The male student had shown significantly higher performance in Mathematics than their female counterpart. Therefore, the second hypothesis that “there is no significant difference between male and female student in Mathematics achievement of IXth grade students” is rejected at 0.01 levels. The graphical representation of mean achievement score in Mathematics of male and female students of IXth grade.

Table 2: Significant Differences in Student's Achievement in English and Mathematics of Male Students of IXth Grade

Gender	N	Mean achievement score	% of mean achievement score	Standard deviation (SD)	t-value	Level of significance
Mathematics	50	16.36	81.80%	0.99	0.58	Not significant

It is evident from the table 2 that the number of male students of IXth grade in subject English and Mathematics was 50 each. The mean Mathematics achievement score of male student is 16.36 and SD=0.99. In case of English subject the mean achievement scores is 15.92 and standard deviation SD=3.08. The statistically calculated value of t is 0.58 which is not significant with 98df. The result clearly indicates that there is no significant difference between Mathematics achievement score and English achievement score of IXth grades male students.

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The male student of IXth class had shown equal performance in Mathematics and English. So the third hypothesis stating that “there is no significant difference between Mathematics achievement and English achievement scores of IXth grades male students” is accepted with 98df.

Table 3: Significant Differences in Student’s Achievement in English and Mathematics of Female Students of IXth Grade

Gender	N	Mean achievement score	% of mean achievement score	Standard deviation(SD)	t-value	Level of significance
Mathematics	50	15.00	75.00%	0.00	3.06	0.01
English	50	13.62	68.1%	3.20		

It is evident from the table 3 that the number of female students of IXth grade in subject English and Mathematics was 50 each. The mean Mathematics achievement score of female student of IXth standard is 15 and SD=0.0. In case of English subject the mean achievement scores is 13.62 and standard deviation SD=3.20. The statistically calculated value of t is 3.06 which are significant at level 0.01 with 98df. The result clearly indicates that there is significant difference between Mathematics achievement score and English achievement score of IXth grades female students. The female student of IXth class had shown significantly higher performance in Mathematics than English. So the fourth hypothesis stating that “there is no significant difference between Mathematics achievement and English achievement scores of IXth grades female students” is rejected at 0.01 levels as 98df.

Table 4: Correlation in Subjects English and Mathematics of Male Students of IXth Grade

N	$\sum X$	\bar{X}	$\sum Y$	\bar{Y}	$\sum XY$	$\sum X^2$	$\sum Y^2$	δx	δy	r
50	796	15.92	818	16.36	13058	13222	13905	3.08	0.99	0.21

It is depicted from table 4 that the number of male students of IXth grade in subject English and Mathematics was 50 each. The mean Mathematics achievement score of IX grade male student is 16.36 and SD=0.99. In case of English subject the mean achievement scores is 15.92 and standard deviation SD=3.08. The statistically calculated value of coefficient of correlation (r) =0.211. It is being revealed that there is a low positive correlation between Mathematics and English achievement of IXth grades male students. So the fifth hypothesis stating that “there is no correlation between Mathematics achievement and English achievement scores of IXth grades male students” is rejected.

Table 5: Correlation in Subjects English and Mathematics of Female Students of IXth Grade

N	ΣX	\bar{X}	ΣY	\bar{Y}	ΣXY	ΣX^2	ΣY^2	δx	δy	r
50	681	13.62	750	15.00	10412	9777	1144105	3.20	0.00	0.45

It is depicted from table 5 that the number of female students of IXth grade in subject English and Mathematics was 50 each. The mean Mathematics achievement score of IXth grade female student is 15.0 and SD=0.0. In case of English subject the mean achievement scores is 13.62 and standard deviation SD=3.20. The statistically calculated value of coefficient of correlation (r) =0.45. it is being revealed that there is a moderate positive correlation between Mathematics and English achievement of IXth grades female students. So the fifth hypothesis stating that “there is no correlation between Mathematics achievement and English achievement scores of IXth grades female students” is rejected at 0.01 level of significance.

MAJOR FINDINGS

On the basis of t-test and product moment correlation coefficient (r) applied to investigate gender basis difference in mean English and Mathematics scores of IXth grade students, the following major findings are derived as.

1. There exists a significant difference between male and female students in English achievement scores. The male students have more academic achievement in English than their female counterpart.
2. There exists a significant difference between male and female students in Mathematics achievement scores. The male students have more academic achievement in English than their female counterpart.
3. There does not exist significant difference between English and Mathematics achievement scores of IXth grade male students. The male student of IXth class had shown equal performance in English and Mathematics.
4. There exists a significant difference in English and Mathematics achievement scores of IXth grade female students. The female student of IXth class had shown more academic achievement in Mathematics than English.
5. There exist low positive correlation between English and Mathematics achievement of male students of IXth grade.
6. There exist moderate positive correlation between English and Mathematics achievement of female students of IXth grade.

DISCUSSION

The finding of present study clearly shows that performance of the students both in English and Mathematics is found to be good. The mean achievement in combined English and Mathematics of male student was 16.14 and for girls 14.31 out of maximum score of 20. In term of percentage the mean achievement scores for boys was 80% and for girls was 71.11%. Thus the performance of students in English and Mathematics is found to be good. This result is different with the finding of Prakash

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and Pandey (1996), who also reported that the performance of students in both Mathematics and language in primary schools was low. It was also found that at secondary level in subjects English and Mathematics, male students have significantly higher mean achievement scores in English as well as Mathematics than their female counterparts. Kulkarni (1970), reported boys had higher achievement level than the girls in Mathematics at primary, middle and secondary stage, in as many as 15 states. Friedman (1989) concluded the study that the gender gap favouring boys were common in high school. Dossey, *et.al.* (1988) conducted a study with 17 years old student and found out performance girls. Campbell (1991) conducted a study and found female scored low.

EDUCATIONAL IMPLICATIONS

The present study has come with that male students are performing better in mathematics and English than their female counterparts. The study also revealed that lack of motivation and low expectation of female students may be the cause of being trailed to male students. Thus, there is need to focus on the overall teaching learning environment of schools. Teachers, who are accorded as the leader of the class room teaching, should take this responsibility and should also encourage and motivate both boys and girls to excel in the academic arena. So the findings of the study would definitely help in to chalk out the plan, related to the improvement of academic achievement of male and female.

SUGGESTIONS FURTHER RESEARCH

Some of these research problems related to this area are given below and may be taken by researchers in future.

1. Student's socio-economic status and their achievement in English and Mathematics.
2. Student's personal factor and achievement in English and Mathematics.
3. Effects of parent's education and occupation on their achievement in English and Mathematics.
4. Gifted and non-gifted children and their achievement in English and Mathematics.
5. Creative and non-creative children and their achievement in English and Mathematics.
6. Influence of class size on their achievement in English and Mathematics.
7. Gender gap linked to differential socialization for high achieving English and Mathematics students.
8. Influence of classroom climate on achievement in English and Mathematics.
9. Socio economic and gender effects on in English and Mathematics achievement.
10. School effectiveness on in English and Mathematics achievement.

CONCLUSION

The good performance of the students in general at secondary level is indicative of either good environment of English and Mathematics or the students belong to medium social strata of the population, in terms of economic condition and education.

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Further, it had been found that boys have significantly higher academic achievement in subject English and Mathematics than the girls. Why these gender gaps do occurs in English and Mathematics education? Different groups of researchers have supplied very divergent answer to this question. There are many factors like cognitive, motivational, biological and parent's attitude which are responsible for creating gender gap. Two factors, one cognitive and other, motivational may account for tendency for males to make more egoistical attribution than females.

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Self Concept and Values of Male and Female Employees Working in Banking Sector

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ABSTRACT:

The present study was conducted to compare the self concept and Values of male and female employees in banking sector. The sample for the present investigation consists 120 employees from Jalgaon City. In order to select the sample from the banking systematic random sampling technique was involved. From banking both male and female subjects were included in the sample. The researcher used two standardized psychological tests the self-concept scale by Dr. Raj Kumar Saraswat (1984) and Kamal Dwivedi and Shagufta Hafiz (1998) value scale to collect the data from the field. The investigator used different statistical analysis viz, mean, S.D and t-test to analyze the data. It was found male employees in comparison to female employee have been found high on self concept. The male and female employees on values have been not found significance difference on values scale.

Keywords: *Self concept, values, Bank Employees.*

Banking is the helping hand of the people. Banking has facilitated in increasing the very important sectors of the financial system. The segment has translated the expectations and objectives of millions of people into certainty. As financial mediators, banks stand between depositors who make available money and borrowers who required money. Given how much commerce and individual wealth rests on healthy banks, banking is one of the most to a great extent regulated businesses in the world. Values have been explained theoretically in a various concepts. Valuing a purpose in this way requires computations that are away from an individual's competences.

Self concept and Values imitate human personal decisions and attitudes, resolutions and relationships, vision. Self concept and Values are look upon as attractive, essential, and held in high admiration by a challenging society in which a person lives. Thus values give importance and superiority to individual character by engaging an essential place in his life. Our Self concept and values may differ from one society to the other. The variables Self concept and values need to be studied properly, both from the theoretical and practical point of view. The study can help the make their positive attitude towards Self concept and value to improve their performance in personal component of profession.

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REVIEWS OF LITERATURE

As **Cheney (1983)** has proposed, the content of employee communication may facilitate the identification process, because it discloses the goals, values and achievements of the organization.

Bolus (1982) concluded that grades in English, mathematics and science were more highly correlated with matching areas of self-concept than with general self-concept.

Campbell and Jennifer D (1990) examined self-esteem and clarity of the self-concept, the association between evaluative and knowledge components of the self. Four studies tested the hypothesis that the self concepts of low self-esteem (LSE) people are characterized by less clarity or certainty than those of high-self-esteem (HSE) people.

Chattopadhyay (1991) reviewed Values and beliefs, which are the building blocks of an organization's culture, consist of symbols, communications scripts, events, myths, and ways of doing things.

Epstein and Seymour (1973) studied self-concept revisited: or a theory of a theory. In the presented study, researchers attempted to integrate phenomenological theories of the self-concept into a broader framework compatible with an objective approach.

Kowalczyk & Pawlish (2002) studied Organizational culture is a set of assumptions, beliefs, and values.

M.Y. Ganai, Maroof Maqbool (2013) studied the values of male and female veterinary science doctors of skuast-k. There is no significant difference between male and female veterinary doctors on aesthetic value but female have slightly higher mean than male veterinary science doctors.

Sengupta (2004) studied the leader's values and leadership style shape an organizational culture through the influence of daily practices, tasks, and behaviors.

OBJECTIVES

- i. To study and compare the Self concept of male and female employees of banking.
- ii. To study and compare the values of male and female employees of banking.

HYPOTHESES

- i. There exists significant difference between male and female employees of banking on Self concept.
- ii. There exists no significant difference between male and female employees of banking on Values.

DELIMITATION OF THE STUDY

- The geographical area of the study was delimited to the banking employees Jalgaon City.
- Sample for the study was delimited to clerical and administrative employees in the age range between 22 and 50.
- The present study is delimited to self concept and Value only.

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- Only co operative bank were selected for the investigation

SAMPLE:

For this study, 120 employees (60 Male and 60 Female) in the age range of 22 to 50 years were randomly selected from the Jalgaon District of Maharashtra state.

VARIABLES:

Independent variables: Area : Jalgaon city
Gender : 1. Male 2. Female

Dependent variables: 1. Score of self concept scale
2. Score of Values scale

TOOLS:

The following tools were used for collecting data for the study:

- Self-Concept Questionnaire (SCQ):** Dr. Raj Kumar Saraswat (1984) The questionnaire was standardized and the inventory have contains 48 items. This test contains 48 items with the responses are scored according to weight age of 5 to 1 (very much to never). It provides six separate dimensions of self-concept i.e. physical, social, temperamental, educational, moral, and intellectual self concept.
- Value Scale :** Kamal Dwivedi and Shagufta Hafiz (1998) For study of values scale constructed by Kamal Dwivedi and Shgufta Hafiz is utilized. This scale measures seven types of values i.e. Theoretical, Political, Economic, Social, Aesthetic, Religious and Moral Values.

DATA COLLECTION:

After the selection of psychological tests, the sample of bank employees was approached within the premises of **respective bank**. To ensure quick and complete return of questionnaire, they were properly given to the selected sample of male and female employees. The data collected was subjected to statistical processing and results were obtained.

STATISTICAL ANALYSIS:

For the purpose of the analysis, Descriptive statistics statistical techniques were used. Here researcher amylase total score of self concept and values. The level of significance was set at 0.01 and 0.05 levels.

ANALYSIS AND INTERPRETATION

H01 “There exists significant difference between male and female employees of banking on Self concept”.

Table-1: Showing Mean, Standard Deviations, and t-Value of the Male and Female Employee (N=60 in Each Group) for self concept.

Group	N	Mean	S.D.	‘t’ Value	Level of Significance
Male	60	211.33	16.898	3.257	Significance.*
Female	60	201.70	15.470		

* Significant at .05 Level.

Table no. 1 shows the descriptive statistics of the self concept. The Mean of Male Employees 211.33 and for Male Employees 201.70, whereas for Male Employees S.D. 16.898 and S.D. for Male Employees 15.470, obtained t-value is 3.257 which is found no significant at 0.05 level. Therefore, it can be concluded that the H01 “**There exists significant difference between male and female employees of banking on Self concept.**” is selected.

H02 “There exists no significant difference between male and female employees of banking on Values”.

Table-2: Showing Mean, Standard Deviations, and t-Value of the Male and Female Employee (N=60 in Each Group) for Values.

Group	N	Mean	S.D.	‘t’ Value	Level of Significance
Male	60	208.10	13.260	1.517	N. S.*
Female	60	204.23	14.620		

* Significant at .05 Level.

Table no. 2 shows the descriptive statistics of the values. The Mean of Male Employees 208.10 and for Male Employees 204.23, whereas for Male Employees S.D. 13.260 and S.D. for Male Employees 14.620, obtained t-value is 1.517 which is found no significant at 0.01 and 0.05 level. Therefore, it can be concluded that the H01 “**There exists no significant difference between male and female employees of banking on Values.**” is selected.

FINDINGS

Major findings of the present study are as under:

- There exists no significant difference between male and female employees of banking on Self concept.
- There exists no significant difference between male and female employees of banking on Values.

CONCLUSIONS AND DISCUSSION

From the above said findings we can conclude that the male employees are high on self concept as compared to female employees but results have not shown much difference on self concept among male and female employees. Male employees are higher on self concept in comparison to female. The finding is supported by Cooley (1902), Mead (1934) have long maintained that one's self-concept results from social interaction with significant others as one develops ideas concerning what others think of one. The performance development of any area of industry requires development in values and self concept among employees. Based on the end result and discussions, it could be concluded that employees self concept and values are help them to improved their performance. supported by Ginzel, Kramer, & Sutton (1992) Value diversity implies differing reactions to the justice of manager's actions. This challenges managers, who strive to build consensus within their departments about appropriate behaviors and the need to reconcile conflicting positions. Banking sector employees are playing important role in clerical and interpersonal level communications. If they can know their self concept and values it will be helps to make the performance better in banking sector and social level.

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Impact of Spirituality on Well-Being among Old Age People

Razia Saleem¹, Dr. Kr. Sajid Ali Khan²

ABSTRACT:

The present study was planned to find out the impact of Spirituality on Well-being among old age people. Sample of the present study comprised of one hundred old age people (age range 50 to 65). Sample was randomly selected from different areas of Aligarh. The data were collected by Spirituality Attitude Scale (Hussian et al., 2011) and Well-Being Scale (Jagsharanbir Singh and Dr. Asha Gupta, 2001). Simple Linear Regression was applied to examine the Correlation between Spirituality and Well-being as well as Coefficient of Spirituality on Well-being. Whereas, it was found to be $R=.359$ and R Square Change was 12% which represent the contribution (Impact) of predictor variable on Well-being among Old age people. The Correlation was computed between Spirituality and Different dimensions of Well-being i.e. Physical, Mental, Social, Emotional and Spiritual and it was found to be .542, .592, .524, .527 and .451 respectively. Further, Correlation was applied between Overall Well-being and Different dimensions of Spirituality i.e. Sense of Purposeness and Maintenance of Discipline which was found to be .696 and .534. Well-being is concern for an individual by which he can live a better life on which the happy life of the society is based. In order to be living long an individual should be involve in religious practices throughout his/her life.

Keywords: *Spirituality, well-being & old-age people.*

Spirituality plays an important role in the lives of older peoples. Spirituality is one of the most important sources of strength and direction in people's lives. It is a human phenomenon, which exist in almost all persons. The term spirituality generally used to denote certain positive inward qualities and perceptions while avoiding implications of narrow, dogmatic beliefs and obligatory religious observances (wulff, 1996). Spirituality is a unified quality of mind, heart, and soul. It is concerns with individual subjective experiences, sometimes shared with others. Spirituality plays an important role in Indian society across all ages. As one gets older, the role of spirituality becomes more prominent.

The concept of spirituality includes multiple dimensions which may have different meanings and interpretations.

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Spirituality is usually observed in individuals', families,' and communities' thoughts, behaviors and languages that are assumed to emanate from their intra, inter and transpersonal experiences with spirit (Swinton, 2001). Intrapersonal refers to a connectedness within oneself and focuses on the potential of the self and the resource of inner strength. Interpersonal represents the connectedness with others and environments. Transpersonal refers to a sense of connectedness with God or a 'higher' power other than the self and ordinary resources. (Reed, 1992) Spirituality was defined as a common human experience that forms an integral part of every person's search for meaning and purpose in life, suffering and illness and the outward expression about an intra, inter and transpersonal experience of the individual (Reed, 1992, Tanyi, 2002; Swinton, 2001). Spirituality is a complex and has many dimensions, for example, miller and thorenson (2000) proposed three broad measurement domains; spiritual practices, beliefs, and experiences. Spirituality can be assessed in a variety of ways like clinical interview, spiritual measures in three domains *viz.*, belief, and behaviour experience. The broad goal of assessment understands. Spiritual life means the development of self- consciousness and the cultivation of one's inner resources through personal efforts and personal choice. Spirituality can help people maintain good well-being, it can help them cope with everyday stress and keep them grounded. Spirituality can also help people deal with mental distress and mental illness. Spirituality can be a feeling of being connected to something bigger than yourself and it provide a way of coping an addition to your own mental resilience. It can also help the people make sense of what they are experiencing

Spirituality or beliefs may be described as experiencing a deep sense of meaning and purpose in Life, together with a sense of belonging. It is about acceptance, integration and wholeness. It applies to everyone, including those who do not believe in God or a 'higher being'. For an individual, their spiritual, religious or personal beliefs may be particularly important in times of emotional stress, physical and mental illness, loss and bereavement. People's beliefs and experiences of spiritual or religious matters can change through the course of their lives and may differ from that of their family of origin. Spirituality is a deep feelings and beliefs – both religious and non-religious – and often this involves questions about who we are and why we exist, or the meaning and purpose of life. It involves many factors such as morals and principles, ethics and values, one's connection to others or relationships with them, and a sense of belonging. It has also been described as acceptance of being human and a sense of wholeness, irrespective of intellectual ability. It is believed that when we are spiritually healthy our inner selves can be in harmony with the world around us, even when we are under emotional, mental or physical stress.

Spiritual life can give people strength and impress their well-being. But some people experiences of spirituality may be damaging to their mental health. They may find certain belief systems repressive and their follower's judgmental. King et al (2013) investigated religion, spirituality and mental health: results from a national study of English households they found out that people who have a spirituality understanding of life in the absence of a religious framework are

vulnerable to mental disorder. Interest in spirituality and aging has increased recently, primarily owing to empirical research overwhelmingly demonstrating the various health benefits of spirituality and religious participation. Studies have also shown that spirituality tends to increase during later adulthood. Interestingly, this trend of increased spiritual growth and religious activities in older age people continues in modern society, despite significant secularization of the society compared with 50 years ago. Spirituality moderates positive relationships with various measures of life satisfaction

Spiritual wellbeing is about our inner life and its relationship with the wider world. It includes our relationship with the environment, our relationships with others and with ourselves. Spiritual wellbeing does not *just* reflect religious belief although for people of a religious faith it is obviously a central feature. Each person's spirituality is greatly impacted by the community they are a part of and their relationships. To be spiritually well will mean a positive engagement with others, self and our environment. Spirituality moderates positive relationships with various measures of life satisfaction, psychosocial wellbeing, both physical and mental health, and is helpful in the quest for meaning and purpose in life. Understanding an individual's spiritual perspective becomes increasingly important, given the issues of loss, physical illness, disability and mortality that are confronted in old age.

Well-being is an individual's satisfaction with life and with the cultural and intellectual conditions under which he/she lives with goals, expectations and concerns (Diener et al., 1999). Each individual and family makes broad judgments about his or her life as a whole, as well as about domains such as marriage and work. Well-being is a positive outcome that is meaningful for people and for many sectors of society, because it tells us that people perceive that their lives are going well. Good living conditions (e.g., housing, employment) are fundamental to well-being. Tracking these conditions is important for public policy. However, many indicators that measure living conditions fail to measure what people think and feel about their lives, such as the quality of their relationships, their positive emotions and resilience, the realization of their potential, or their overall satisfaction with life—i.e., their “well-being. It generally includes global judgments of life satisfaction and feelings ranging from depression to joy. Well-being includes the presence of positive emotions and moods (e.g., contentment, happiness), the absence of negative emotions (e.g., depression, anxiety), satisfaction with life, fulfillment and positive functioning. In simple terms, well-being can be described as judging life positively and feeling good.

Well-being or welfare is a general term for the condition of an individual or group, for example their social, economic, psychological, spiritual or medical state; high well-being means that, in some sense, the individual or group's experience is positive, while low well-being is associated with negative happenings. In economics, the term is used for one or more quantitative measures intended to assess the quality of life of a group, for example, in the capabilities approach and the economics of happiness. Like the related cognate terms 'wealth' and 'welfare', economics sources

may contrast the state with its opposite. The study of well-being is divided into subjective well-being and objective well-being.

Well-being can be understood as how people feel and how they function, both on a personal and a social level, and how they evaluate their lives as a whole. To break this down, how people feel refers to emotions such as happiness or anxiety. How people function refers to things such as their sense of competence or their sense of being connected to those around them. How people evaluate their life as a whole is captured in their satisfaction with their lives, or how they rate their lives in comparison with the best possible life. You can think of someone as having high well-being if they function well, have positive feelings day-to-day and overall and think their lives are going well; we call this 'flourishing'. Similarly, you can think of someone as having low well-being if they do not function well and have negative feelings day-to-day and overall.

Well-being is a much broader concept than moment-to-moment happiness: it includes happiness but also other things such as how satisfied people are with their lives as a whole, and things such as autonomy (having a sense of control over your life), purpose (having a sense of purpose in life). Some research reported that spiritual well-being was positively related to family support and social Support, but negatively related to loneliness (Jang & Kim, 2003; Lee, 2002; Lee, 2003). However, spirituality should be investigated from a family perspective because the family becomes a key to the experience and practice of spirituality as well as the major source of care and support to enhance elders' health and well-being (WHO, 2000; Wright, 2005)

According to Erickson and Kivnick (1986), late adulthood is a development period of life span where significant physical, cognitive, social and psychological changes take place. Various adjustment need to be made by the elderly in relation to retirement, deteriorating physical health, acceptance of death and often loneliness due to death of spouse and lack of social support. Loneliness occurs throughout the life course but increase with age. By the end of this decade, the population of older persons in India will be 100 million. But even then there has been little headway in setting up a separate bureau of older persons. The perceptions of older peoples situation should not be and is not generally or inevitably problematic, but some people face considerable insecurity and a lack of well being in old age.

OBJECTIVES

The objectives of the study are-

1. The main objective of the study to see the impact of spirituality on well-being among old age peoples.
2. To study the relationship between spirituality and different dimensions of well-being, i.e. Physical Well-being, Mental Well-being, Social Well-being, Emotional Well-being and Spiritual Well-being old age peoples.
3. To study the relationship between spirituality and over-all well-being among old age peoples.

HYPOTHESIS

1. There will be a significant influence of spirituality on Well-being among old age people.
2. There will be relationship between spirituality and different dimensions of well-being, i.e. Physical, Mental, Social, Emotional and Spiritual Well-being old age peoples.
3. There will be significant correlation between spirituality as well as Well-being of old age peoples.

METHOD

Sample

The study was conducted on 100 old age peoples between the ages of 50 to 65 years. Sample was randomly selected from different areas of Aligarh. Most of the people experienced Spirituality is positively related to well being it effects positive on individual life mostly in old age peoples become more spiritual through which their Well-being become more healthy and good.

Measures

Spirituality Attitude Scale: developed by Hussain et al (2011) it comprises of 31 items. It is five point scale having alternatives give (5) strongly agree, (4) Disagree, (3) Neutral, (2) Agree, (1) strongly agree. But in negative items we reverse the scoring. It has two dimensions namely sense of purposeness and maintenance of discipline.

Well-being Scale: This Scale was developed by Jagsharanbir Sing and Dr. Asha Gupta, (2001). It consisted of five sub-scale namely-Physical Well-being, Mental Well-being, Social Well-being, Emotional Well-being and Spiritual Well-being. Each sub-scale has ten items and there are 50 items in total. Scores on all the sub-scale are added up to get a composite score as total well being. Minimum and maximum score can be 50 and 250 respectively. Only 10-15 minutes are required to administer the well being scale. It consist 29 positive items and 21 negative items. Reliability: Test-retest reliability of the scale was 0.98 and split half reliability was found 0.96. Validity: Content and concurrent validity of the Well being Scale was established. Concurrent validity of the scores of well being scale was determined by comparing it with the scores of Subjective Well-being Inventory Sall and Nagpal (1992). Correlation between subjective well being inventory and physical well being, subjective well being inventory and social well being, subjective well being inventory and emotional well being, subjective well being inventory and spiritual well being and subjective well being and total well being were -0.45, 0.87, -0.90, 0.28, 0.18 and 0.53 respectively.

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Procedure:

A good rapport was established with the old age people before we asked them to fill the questionnaires and care was taken to remove any misconceptions regarding the proposed study. Subjects were assured that the information gathered from them would be kept secret and were requested to extend their co-operation. The questionnaires were distributed to the subjects. The questionnaires were explained to the subjects by the investigator and the subjects were instructed to read the questionnaires carefully and if there is something vague in the written material, they were asked to make it clear by asking the investigator. The subjects were then asked to complete the questionnaires. Subjects took half an hour to complete the questionnaires. After completing the questionnaires the subjects were asked to return their questionnaire to the investigator for further analysis.

Statistical analysis:

Analysis of the data is done according to the aim and objective of the study. Simple Linear Regression was applied to examine the Correlation between Spirituality and Well-being as well as Coefficient of Spirituality on Well-being.

RESULTS

Table-1: Represents Simple Linear Regression analysis, Spirituality as predictor of Well-being among Old age People.

Model Summary				
Model	R	R Square	Adjusted R Square	Change Statistics R Square Change
1	.359 ^a	.129	.120	.129

a. Predictors: (Constant), Spirituality Overall

Table.1 represents the Model Summary indicating one Predictor of the model, in which correlation between Spirituality and Well-being was found to be $R=.359$ which is significant, further $R\text{ Square Change}=.129$ which represents the actual contribution of Spirituality to Well-being, the real covariance magnitude of Predictor variable which contribute to the Criterion Variable came out as 12.9%.

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Table-2: Showing the Coefficient details of Spirituality and Well-being among Old age People.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	115.549	8.365		13.813	.000
Spirituality Overall	.565	.148	.359	3.813	.000

Table-2 (Coefficient) indicates that Spirituality (Predictor) influences Well-being (WB) (Criterion). The Statistical value given in the mentioned table indicates that $t = 3.813$ values are significant for Spirituality and also show the positive relationship between Spirituality and WB. The Value of Partial Correlation is $r = .359$ which indicates that Spirituality significantly influences degree of WB among Old age People.

Table-3: Showing the Correlations between Spirituality and different dimensions of Well-being among Old age People.

Correlations^a

		Physical Well-being	Mental Well-being	Social Well-being	Emotional Well-being	Spiritual Well-being
Spirituality Overall	Pearson Correlation	.542**	.592**	.524**	.527**	.451**
	N	100	100	100	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

Table-3 represents the Correlations between Overall Spirituality and different dimensions of Well-being, which shows that Physical, Mental, Social and Emotional; Spiritual Well-beings are significantly correlated with Spirituality.

Table-4: Showing the Correlations between Well-being and different dimensions of Spirituality among Old age People.

Correlations

	Sense Of Purposeness	Maintenance Of Discipline
Overall Well-being Pearson Correlation	.696**	.534**
N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

Table.4 shows the positive and significant correlation between Well-being Overall and the different dimensions of Spirituality i.e. Sense of Purposeness as well as Maintenance of discipline among Old age people.

DISCUSSION

In our findings the statistical analysis we use analyses of regression and parsons' product moment coefficient of correlation were workout between spirituality and its two dimensions sense of Purposeness and maintenance of discipline with well-being and its five dimensions that Physical, Mental, Social and Emotional and Spiritual Well-beings . The analysis was done using SPSS version 16.0. **Table.1** represents the Model Summary indicating one Predictor of the model, in which correlation between Spirituality and Well-being was found to be $R=.359$ which is significant, further R^2 Change $=.129$ which represents the actual contribution of Spirituality to Well-being, the real covariance magnitude of Predictor variable which contribute to the Criterion Variable came out as 12.9%. This finding supported by a number of studies It has been found to be particularly important among older adults, and positively linked to self-appraised good health among elders (Daaleman and Frey, 2004). **Table-2** (Coefficient) indicates that Spirituality (Predictor) influences Well-being (WB) (Criterion). The Statistical value given in the mentioned table indicates that $t = 3.813$ values are significant for Spirituality and also show the positive relationship between Spirituality and WB. The Value of Partial Correlation is $r = .359$ which indicates that Spirituality significantly influences degree of WB among Old age People. The relationships between these two variables represent linear correlation; it means that when Spirituality increases WB also increases and when Spirituality decreases then WB also decreases. This finding supported by a number of studies Spirituality and religion have positive associations with well-being, general psychological function, and marital satisfaction, and negative associations with suicide, delinquency, criminal behaviors, and drug/alcohol use. Especially, sense of hope and peace, love and joy, meaning and purpose in life, self-transcendence, forgiveness of self and others, awareness and acceptance of hardship and

mortality, and a heightened sense of physical and emotional well-being have been indicated as consequences of spirituality in nursing literature (Haase et al., 1992; Reed, 1986; Tanyi, 2002). **Table-3** represents the Correlations between Overall Spirituality and different dimensions of Well-being, which shows that Physical, Mental, Social and Emotional; Spiritual Well-beings are significantly correlated with Spirituality. **Table.4** shows the positive and significant correlation between Well-being Overall and the different dimensions of Spirituality i.e. Sense of Purposeness as well as Maintenance of discipline among Old age people. There is a positive relationship between spirituality and well-being. Spirituality is associated deep values, and inner resources of the older person. This investigation suggest that spirituality grows through continual mutual process when individuals make choices to actualize potentials which reflect a sense of meaning in life, interconnectedness with all living things, and awareness of transcendent dimension of being. This search shows that spirituality plays an important role in the well-being of older people.

CONCLUSION

The above findings have proved that Spirituality has favorable impact and relationship with well-being among old age people. Spiritual people have a good well-being and they are well adjusted in the society. It was also found that spirituality enhance the well-being. Hence, to maintain healthy life spirituality is necessary. Spirituality plays an important role in Indian society across all ages. As one gets older, the role of spirituality becomes more prominent. Elderly persons with a high spirituality were able to manage their well-being better. People usually when they get old, they lose the desires of the proper man in our life such as sex, popularity and success, so they get too close to God because whoever leaves his desires and precede his life is better and closer to God.

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